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COMMUNAL BUFFALO HUNTING AMONG THE PLAINS INDIANS

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Eleanor Verbicky-Todd

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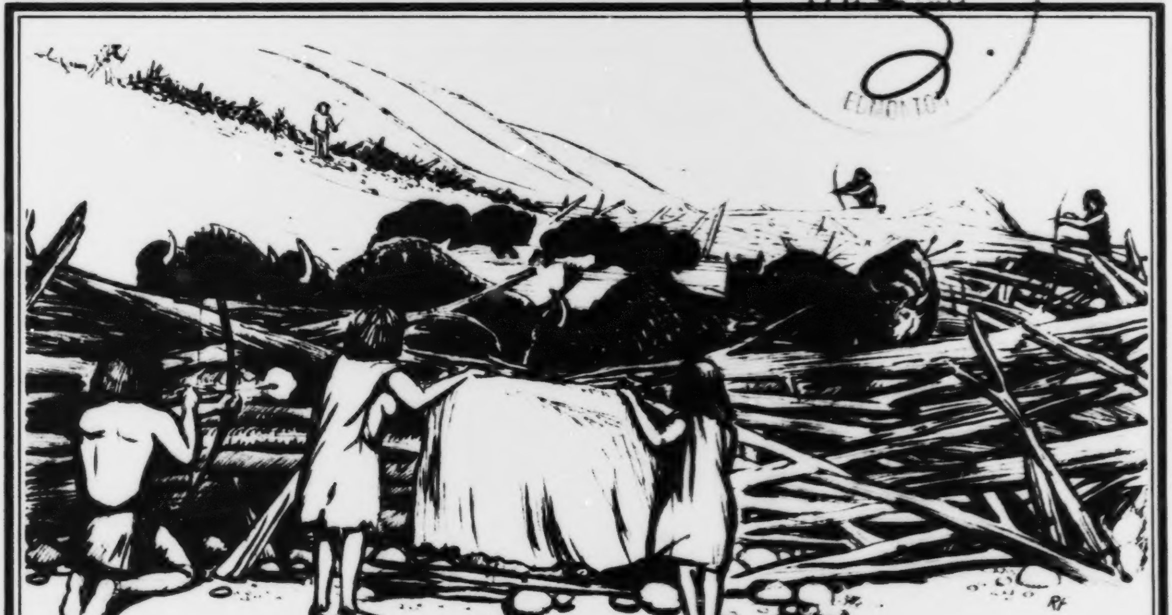

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COMMUNAL BUFFALO HUNTING
AMONG THE PLAINS INDIANS:
AN ETHNOGRAPHIC AND HISTORIC REVIEW

By

Eleanor Verbicky-Todd

Archaeological Survey of Alberta

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FOREWORD

The following report is a research document prepared in conjunction with the planned development of Head-Smashed-In Buffalo Jump in southern Alberta. Concommitant with the successful nomination of Head-Smashed-In Buffalo Jump to the U.N.E.S.C.O. list of World Heritage Sites in 1981 was a decision by the Government of Alberta to fund a major public interpretation program at the site. This program will eventually see a 2400 square metre interpretive centre built on site which will contain display galleries dedicated to the interpretation of communal buffalo hunting and Plains Indian culture. This research and development project is being jointly conducted by the Archaeological Survey of Alberta and the Historic Sites Service, two branches of Alberta Culture.

Successful execution of the site development project necessitated the compilation of much baseline information. Funding and staff resources were made available to pursue the necessary research, both on a contract basis and within the government organizations. As the person responsible for assembling all relevant research, I have initiated a number of projects on such topics as geology and vegetation of the site, paleoenvironmental studies, modern ethnographic research among the Peigan Indians, drive lane cairn mapping project, and a number of literature review projects. This report by Eleanor Verbicky-Todd is one such study. In order to clarify the nature of the report, a few words about the purpose and objectives of the study are in order.

Because the overall objective was to obtain information for the interpretation of Head-Smashed-In, a strong focus was exerted to search primarily the literature for the Northern Plains. The two primary data sets were the historical records and the early ethnographic accounts of communal bison hunting among Northern Indians Plains. Ms. Verbicky-Todd was asked to consult every available record of communal bison hunting, focussing whenever possible on descriptions of buffalo jumps. Various library and archival sources across Alberta were utilized, with the result that few - if any - important works were omitted.

What follows is a comprehensive review of communal buffalo hunting in the Northern Plains. The review is uncritical; it does not attempt to sort out the more or less reliable sources, or to pass judgement on the quality of the information or the recorder. This was intentional, for it thus presents all relevant data to the interested reader who then may engage in various forms of comparison and analysis. Likewise, it was decided to present lengthy quotes from the primary sources so that this document would provide access to the exact words, not brief summaries, of the major sources. Many of these sources are rare and difficult to obtain. The organization of the report is logical, following the operation of a communal kill from start to finish and organized into major headings or topics agreed upon by Ms. Verbicky-Todd and myself.

I would like to thank David Burley, Occasional Paper editor, for his interest in, and support of, this publication. Editorial Assistant Gabriella Prager brought the manuscript to its final form, editing out some of the repetition in various sections of the original report, and removing some minor parts of the report felt to be of peripheral interest to the main subject. We are grateful to the Hudson Bay Archives and the Provincial Archives of Alberta for permission to quote from archival manuscripts. Kathy Miller typed the final version of the report with her usual speed and efficiency. And finally, my thanks to Eleanor Verbicky-Todd, whose conscientious pursuit of this research project has resulted in what I hope the readers will find to be a useful document in the study of the anthropology and archaeology of Plains Indian bison hunting.

Jack Brink
Archaeological Survey of Alberta

INTRODUCTION

The buffalo hunting methods and culture of the nomadic Plains tribes during the historic period are the focus of this study. As a cultural and geographical area, the North American Plains can be described as the large grassland region stretching from central Alberta and Saskatchewan and southwestern Manitoba to the Rio Grande border of Texas, and from the foothills of the Rocky Mountains east to the Mississippi River (Lowie 1963:1; Murdock and O'Leary 1975:3; Rogers 1970:2). From west to east, the Plains can be roughly divided into three environmental areas: the foothills of the Rocky Mountains, the short grass plains, and the tall grass prairie (Murdock and O'Leary 1975:3). The tribes considered to have been the "true Plains tribes" were those dwelling in the foothills and short grass plains during the historic period (Oliver 1962:2). These were the "buffalo Indians", the nomadic tribes whose subsistence depended almost totally upon the buffalo. This dependency has been aptly summarized by Gilbert Roe as follows:

> I know of no other instance throughout the entire world wherein from one single source so many commodities of primary importance were derived. Here, at least, the buffalo surely eclipsed the deer. Among the really fundamental needs of mankind, there was practically none which the former did not furnish. It supplied food for immediate and later use, clothing, bedding, shelter, fuel, tools, weapons (in part), household utilities, means for personal or ritualistic adornment and even the outer 'ecclesiastical' symbols of worship. (1955:602)

According to ethnographer Clark Wissler (1910:221-222), the chief culture traits that characterized the typical Plains tribes included: dependence upon the buffalo; lack of agriculture; a limited use of roots and berries; an absence of fishing; use of the tipi as a movable dwelling; transportation solely by land using the dog and horse travois; clothing made of buffalo and deer skins; a high development of work in skins; an absence of basketry and pottery; social organization based mainly on the hunting band; and observance of the Sun Dance ceremony. The Plains tribes who fit this description were the Assiniboine, Arapaho, Blackfoot, Cheyenne, Comanche, Crow, Gros Ventre, Kiowa, Kiowa-Apache, Sarcee, and Teton Dakota (ibid.:220). On the western, eastern, and northeastern borders of the Plains, and in the Upper Missouri River area of North Dakota were tribes who possessed many (but not all) of these typical Plains culture traits. This study places particular emphasis on the Blackfoot tribes, the Blood, Piegan and Northern Blackfoot, and neighbouring tribes on the northwestern Plains - the Sarcee, Gros Ventre, Assiniboine, Crow, Cheyenne and Plains Cree (the latter are included, although they were not "typical nomadic Plains Indians", because they were immediate neighbours of the Blackfoot and were extensively observed by writers of historic accounts). Information on other Plains tribes and tribes peripheral to the Plains area has also been included in this report to a lesser extent. The territories of the groups emphasized in this study are depicted in Figure 1.

Ideally, the sections of this report should be read in the order in which they are presented. The first section provides a basic understanding of the general subsistence pattern and yearly round of the Indians, and of the significance of the communal hunt within this context. The following sections on communal hunting methods should definitely be read in the order in which they are presented in order to gain a good understanding of the communal hunt not simply as a subsistence method, but also as a complex cultural institution with numerous social and religious elements. The bibliography is a complete listing of all sources examined by the researcher.

The quotations from ethnographic and historic sources contained in this report are quoted verbatim, that is, without modification of the author's archaic or improper English useages.

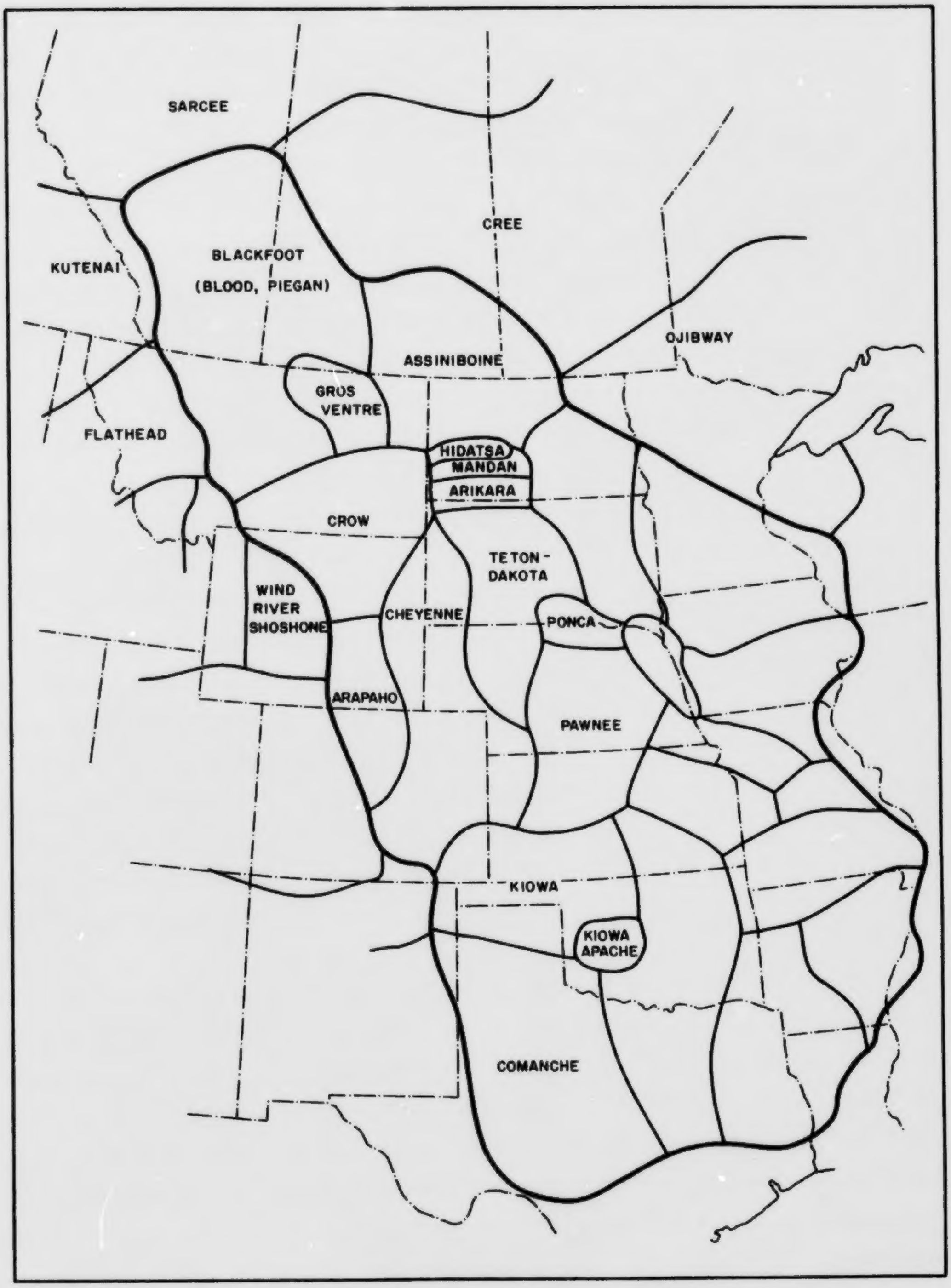

SARCEE
CREE
KUTENAI
BLACKFOOT
(BLOOD, PIEGAN)
OJIBWAY
ASSINIBOINE
GROS VENTRE
FLATHEAD
HIDATSA
MANDAN
ARIKARA
CROW
TETON-DAKOTA
WIND RIVER SHOSHONE
CHEYENNE
PONCA
ARAPAHO
PAWNEE
KIOWA
KIOWA APACHE
COMANCHE

Figure 1. Map of the territories of the Plains and peripheral tribes emphasized in this study (after Murdock and O'Leary 1975).

SUBSISTENCE ACTIVITIES AND THE SEASONAL ROUND

The nomadic Plains Indian tribes led a hunting and gathering existence, primarily hunting a single animal species - the buffalo. The Blackfoot Indians called the buffalo their "real food" (Ewers 1958:86); the Piegan considered themselves "starving" when fresh buffalo meat was unavailable and they had to rely on dried provisions (Coues 1897:725). The buffalo was hunted at all seasons, and almost every part of the animal was consumed or used to make clothing, tools, cooking utensils and other items. The acquisition of horses greatly facilitated buffalo hunting, and accentuated this extreme specialization (Driver 1969:57).

The heavy dependence upon the buffalo necessitated that the Plains Indians lead a nomadic lifestyle. The seasonal round of the Plains tribes was essentially as Alexander Henry observed of the Piegan, "The buffalo regulates their movements over the vast extent of Prairie throughout the year, as they must keep near these animals to obtain food" (Coues 1897:723). The Indians travelled within roughly established tribal territories, going where buffalo were plentiful. The movements of the buffalo were generally continuous, erratic and unpredictable. According to Frank Gilbert Roe, "The buffalo were one of the most erratic, incalculable species that ever trod the earth" (1955:197). According to the historian Francis Haines: "The buffalo herds, depending entirely on grass for food, had to be on the move constantly seeking fresh pastures. In their search for grazing land they wandered rather aimlessly . . . "(1970:13).

The Plains tribes were never able to discover a definite pattern for the movements of the herds (ibid.). Consequently, the availability of buffalo was never a certainty, and the Indians led a precarious existence at times. The nineteenth century fur trader Edwin Thompson Denig noted: "The hunter state with all these prairie tribes is precarious and uncertain. They are often weeks and months without enough meat and not infrequently reduced to absolute famine" (1930:504). Alexander Henry observed: "Buffalo sometimes disappear, and it may be several days before they can get a fresh supply" (Coues 1897:725). As an aid in finding and securing buffalo, the Indians practiced various ceremonies designed to bring the buffalo into their vicinity and gain success in the hunt. They believed that a matter of such great importance could not simply be left to chance (Haines 1970:15; McHugh 1972:52).

In the most general terms, the more common historic and ethnographic version of the seasonal movements of buffalo and Indians is as follows. From late spring to early fall, the buffalo grazed on the open Plains and congregated in large herds for the rutting season (Haines 1970:30; Roe 1972:96-98). During this season, the Plains tribes congregated in large camps to execute communal hunts. According to most accounts, in the summer the surround on foot was the most frequent method used prior to the acquisition of horses, while the mounted surround and communal chase on horseback were used when the tribes had many horses. Early summer was when the buffalo bulls were in prime condition, and this was the only time of year when bulls and cows were hunted in large numbers. At other times the bull meat was tough, and they were hunted only when cows were not available (Ewers 1955:152; Ewers 1958:76; Roe 1972:357; Wissler 1910:41). According to Ewers (1958:76), the season for hunting bulls was known by the Blackfoot as the time when the yellow flowers of the "tooth grass" plant appeared.

At the close of the rutting season, the buffalo separated into smaller herds comprised mainly of either bulls or cows (Flannery 1953:54; McHugh 1970:157). The average number of animals in a cow group was twenty, although groups were occasionally as large as seventy. Bull groups were much smaller, seldom exceeding fifteen or twenty and usually consisting of one to five animals (McHugh 1970:157). The Indians also separated into smaller hunting bands for the majority of the year (Eggan 1964:53; Ewers 1958:96; Flannery 1953:55; Haines 1970:84; Smith 1978:12).

According to Haines (1970:15), the buffalo were scattered over the entire buffalo range throughout the year and a herd might be found at almost any place at any time. However, one factor existed that could usually serve as a general guideline to the location of buffalo herds during the fall and winter months. The need for shelter in cold weather was a factor of great significance in regulating the movements of the buffalo (Roe 1972:572). While this knowledge may not have been very useful in the most southern Plains, in areas of greater seasonal climatic variation, this factor tended to be a determinant of the seasonal movements of the buffalo, and therefore of the Indian tribes. In the northern Plains, where the weather was usually harsh during the winter months, a seasonal migratory pattern did exist in the sense that, after the rutting season, the buffalo moved into sheltered areas such as river valleys, the foothills to the west and timbered areas (particularly the Parklands to the north). The Indians therefore also migrated to these areas (Ewers 1958:9; Denig 1961:118; Grinnell 1893:234).

Writing on the Blackfoot Indians, John Ewers (1958:88) posited that each hunting band wintered separately in semi-permanent winter camps. However, recent research (Arthur 1975; Arthur 1978; Quigg 1978:53-54) on historic records kept by fur traders and missionaries indicates that both the buffalo and the Indians could be found in either small or large groups during the fall and winter months. The same work has also shown that communal buffalo hunting took place throughout the winter and early spring, rather than mainly in the fall and winter as stated by Ewers (1958:128).

The Plains Indians varied their communal hunting methods according to seasonal climatic conditions. In areas where the buffalo required shelter from harsh weather during the fall and winter, buffalo pounds and jumps were apparently the main methods used by Indians who were not affluent in horses. In some cases, a group of Indians would camp near the same pound or jump site for an entire season, to the dismay of the fur traders who received no furs from those Indians. At Fort Vermilion in 1810, Alexander Henry exclaimed in his journal, "When once they [the Cree] take the route for the pounds below, we expect no more fur from them during the season, as they idle, playing and eating buffalo" (Coues 1897:580).

However, the Indians were sometimes unpleasantly surprised by the failure of the buffalo to appear in their expected wintering grounds. If an unusually mild winter occurred, the buffalo remained on the Plains. On December 17, 1857, Dr. James Hector, a member of the Palliser Expedition, made the following observation regarding a buffalo pound that was located in the general wintering grounds of the Cree Indians:

> Soon after starting we passed a pound, into which the Indians drive the buffalo to slaughter them; however, they are very hard up this winter, as the mildness of the season has allowed the buffalo to stay

> much longer than usual out in the plains this year, severe weather always compelling them to seek shelter in the woods. (Palliser 1863:68)

Moodie and Ray (1976) have provided additional historic examples of this kind. They also pointed out that an overabundance of snow in autumn could have the same consequence for the Indians, since the deep snow prevented the herds from reaching the sheltered areas where the Indians had camped for the winter (1976:50).

In autumn, the buffalo cows were in prime condition. According to Ewers, the season when cows were at their best was recognized by the Blackfoot "when 'spear grass' (probably Stipa comata, needle-and-thread) was spread out" (1955:152). Meat was preserved in large quantities at this time to ensure provisions in the event of shortage of fresh meat during the winter. In mid-winter, the cows were killed particularly for their unborn fetuses. Commenting on the Piegan, Peter Fidler noted in his journal:

> The Calves in the Womb are now all well covered with hair. These . . . all Indians are remarkably fond of even when not more than the size of a quart pot they eat them. The greater part of the Cows the Indians now kill is merely for nothing else but for the calf. The Buffalo take the Bulls in the month of June & July & generally bring forth in April or May . . . (February 10, 1793)

The Plains Indians also hunted other game, including elk, moose, antelope, deer, bear and smaller mammals. These animals served as a dietary supplement, especially when buffalo were scarce, but also furnished several items of material culture. The skins of the antelope and deer, for example, were preferred over buffalo hide for warm weatner clothing. Wild fowl were not commonly eaten, although the eggs of some birds were apparently eaten by some tribes, including the Blackfoot (Grinnell 1893:207), Gros Ventre (Flannery 1953:59) and Plains Cree (Mandelbaum 1979:69). Some birds, such as the eagle, were hunted for the feathers.

Fish were rarely eaten by the nomadic Plains Indians, with the exception of the Plains Cree who caught river fish in weirs during the winter and early spring (Mandelbaum 1979:71). Prior to the disappearance of the buffalo, all but one of the Blackfoot tribes (the Fish Eaters band of the Blood Indians) regarded fish as unclean and resorted to eating them only when buffalo and other game were scarce (Ewers 1958:87).

Among some Plains tribes, including the Gros Ventre (Flannery 1953:59), Arapaho, Kiowa, Apache and Pawnee (Wissler 1910:44), the flesh of dogs was considered a great delicacy. Others, including the Blackfoot tribes, showed a special antipathy toward it (Wissler 1910:44).

Tobacco was grown for ceremonial purposes by some tribes, but agriculture was not a subsistence activity of the nomadic Plains Indians. Many of the roving tribes obtained corn through trade with the semi-sedentary village tribes of the Plains area (Lowie 1963:21; Newcomb 1974:89).

The Plains Indians also gathered wild fruits, roots and vegetables to supplement their diet of buffalo meat. Ewers aptly summarized the seasonal gathering activities of the Blackfoot Indians as follows:

> In the spring, summer, and fall women and children gathered wild plant foods. They used a birchwood digging stick for collecting roots. The sharp lower end was hardened in a fire and the upper end was rounded so that a woman could bear upon it with her stomach muscles in loosening roots from the ground. In late spring they dug bitterroot, steeped the root in water until it swelled to several times its size, then boiled it for eating. In June or July they dug quantities of starchy prairie turnips which the Indians ate raw, roasted, or boiled, or dried for winter food. Near the mountains women dug camass bulbs during the same season. They roasted these sweet-tasting bulbs in pits about three feet deep. The pits were lined with flat stones, grass, and leaves, filled with camass bulbs, then covered with earth. A fire was built on top, and the bulbs were thoroughly baked for about three days.
>
> Women and children gathered sarvis berries in midsummer. They beat the bushes with sticks, causing the berries to fall on robes or blankets spread out on the ground. Sarvis berries were eaten raw or cooked in soups and stews. They also were dried and stored in sacks made from the skins of unborn buffalo calves. In September or October the women and children collected chokecherries, which were abundant in the stream valleys of the foothills. They were a favorite flavoring for soups. Large quantities of them were laid on hides, dried in the sun, pounded, and used as an ingredient in pemmican. After the first frost, buffalo berries (also known as bull berries) were gathered from their thorny, silver-leafed bushes. They were eaten fresh or were dried for winter consumption. When berries were ripe and juicy the Blackfeet sometimes mashed them with a stick in a buffalo horn and drank the juice from the horn.
>
> In summer or winter children loved to suck the sweet inner bark of the cottonwood trees, which were plentiful in the river valleys. (1958:86)

According to ethnographer Clark Wissler, there is "little that can be considered distinctive in the food preferences of the Blackfoot" when they are compared with other nomadic Plains tribes (1910:24). In their choice of vegetables, "they agree with most of the roving tribes in the Missouri-Saskatchewan Basin. The Sarcee, Plains Cree, Assiniboine, Gros Ventre, Teton, Yankton, Crow and Cheyenne, at least, made similar use of wild turnips, wild cherries and plums" (ibid.).

In summary, buffalo hunting was the primary subsistence activity of the nomadic Plains Indians at all times of the year. The Indians' nomadism was a consequence of their need to secure success in this activity. Wild plants were gathered when in season and were an important dietary supplement. Large and small mammals were hunted for use in making specific items of material culture and to occasionally supplement the Indians' buffalo diet. These activities constituted the basic subsistence pattern of the nomadic Plains Indians.

COMMUNAL BUFFALO HUNTING

INTRODUCTION

During the period that buffalo hunting was the primary subsistence activity of the nomadic Plains tribes, the communal buffalo hunt was the most significant buffalo hunting technique practiced by the Indians. The communal buffalo hunt involved a group of people, on either the band or tribal level, working together to secure a large number of buffalo simultaneously and to process the kill for consumption by the community. Communal hunts were pre-planned and were generally preceded by ceremonies performed to help obtain success in the hunt and/or the enforcement of restrictions on the hunting practices of individuals. Pre-hunt ceremonies were particularly important in the drive methods, which involved the difficult tasks of manipulating and driving a herd of buffalo into a trap situated in a specific location. They were less common prior to those communal methods which did not require luring the buffalo into a trap, thereby being less dependent upon fortunate geographic and climatic circumstances. Hunt restrictions were enforced when several bands were camped together prior to spring and summer communal hunts; the winter communal hunts were usually executed by smaller groups.

Communal buffalo hunts were performed throughout the year by the nomadic Plains tribes. They were also an important subsistence activity of the semi-sedentary village tribes of the Plains area. These tribes generally executed communal hunts in summer, after the spring planting, and during the late fall and winter, after the harvest (Arthur 1975:97). Methods of communal buffalo hunting apparently varied with the seasons. Drive methods were generally employed during the fall and winter when the buffalo sought shelter in timbered or broken country. During the warm season, when the buffalo grazed on the open Plains, the people usually hunted by surrounding a herd or by charging and chasing it on horseback. All of these methods were conducted according to a traditionally established regimen of procedures familiar to all who took part in the hunt.

The communal hunts were of great importance not only to the subsistence of the Indians, but also to their safety and their social and cultural life. The development of successful communal hunting methods enabled the Indians to live together in bands of at least several family units during most of the year, and in large tribal camps for part of the year. This rendered the Indians less vulnerable to their enemies, and also facilitated the maintenance of tribal cultural traditions. Understandably, a successful communal hunt was an exciting event which usually was concluded with feasting and celebrations that sometimes lasted several days.

PREPARATION FOR THE HUNT

Because the outcome of the communal hunt was of crucial importance to the subsistence of an entire Indian band, or several bands hunting together, pre-hunt activities designed to bring success in the hunt were practiced by the Plains Indians. Essentially two kinds of activities, ceremonial procedures and the enforcement of hunting restrictions on band members, took place prior to the hunt.

PRE-HUNT CEREMONIES

Pre-hunt ceremonies were designed to charm the buffalo into coming close to camp, entering a trap, or being easily taken by hunters. Such ceremonies have been attributed to most Plains tribes by Wissler (1974:119). According to Thomas Mails (1972:194), all of the Plains tribes had buffalo calling songs. In addition to such songs, characteristic elements of pre-hunt ceremonies included charms, dances, mimicry of buffalo behavior, ritualistic offerings and prayers. These ceremonies emphasized that the hunt was a serious venture controlled by the supernatural (McHugh 1972:52).

Pre-hunt rituals varied from tribe to tribe and were traditions that had been passed down through generations (ibid.). The ceremonies also varied among individual shamans and differed according to the current circumstances of the tribe (for example, certain buffalo songs of the Blackfoot could only be sung during times of starvation). Buffalo charming ceremonies would have been particularly important to all of the Plains tribes before horses became widely available, i.e., when travel and hunting were done on foot. Bringing the buffalo within the vicinity of the hunters was crucial to communal hunts conducted on foot. In the historic period, pre-hunt ceremonies were especially important to the northwestern Plains tribes during the fall and winter when buffalo pounds and jumps were employed and weather conditions often prevented the Indians from pursuing the buffalo.

Pre-hunt ceremonies used by the Blackfoot tribes have been described by Barrett (1921a:80-84), Ewers (1958:13), First Rider (1969c:I-VII), Grinnell (1893:125-126, 229), Mails (1972:193-194), McHugh (1972:50-53), Schaeffer (n.d.), Wissler (1912:204-209), and Wissler and Duvall (1908:85-89). Among the Blackfoot Indians, the Beaver Men, owners of Beaver Bundles, were usually called upon to conduct the pre-hunt ceremonies. The Beaver Bundle was a medicine bundle containing a variety of items, including the skins of several animals, the ribs, tail and hooves of a buffalo, rattles, and a digging stick. Calling the buffalo was apparently one of several functions of the bundle. The Beaver Man's ability to call the buffalo rested primarily on the presence of one or more iniskim in the Beaver Bundle. The Blackfoot iniskim, or "buffalo rock", has been described in detail by Barrett (1921a:80-84), Schaeffer (n.d.) and Wissler (1912:242-245). S.A. Barrett collected several examples of iniskim on the Blackfoot Indian Reservation in Montana in 1921, and observed that "a buffalo stone is always a fossil shell of one kind or another and may range from a whole shell, weighing several pounds down to a segment of a very small shell....weighing but a fraction of an ounce" (1921a:81-82). Wissler (1912:243) stated that ammonites, which were often shaped vaguely like a buffalo, were apparently the most powerful type of buffalo rock, but that buffalo rocks were not limited to fossils. Any pebble bearing a special resemblance to an animate object was regarded as an iniskim. Grinnell noted that the stones were "usually small Ammonites, or sections of Baculites, or sometimes merely oddly shaped nodules of flint" (1893:126).

According to the myth of the origin of the buffalo rock, the first iniskim was found by a woman during a severe winter when the buffalo suddenly disappeared, causing the people to starve. While walking on the prairie, the woman heard a beautiful song and discovered it was emanating from a rock resting on a bed of buffalo hair. The buffalo rock taught the woman a buffalo calling ceremony. She returned home with the rock and taught the rites to her husband and the chiefs and the old men of the camp. From that time on, her performance of the ceremony brought the buffalo back to the people and the *iniskim* medicine rendered powerful assistance in the hunt (Barrett 1921a:82-84; First Rider 1969c:I-IV; Grinnell 1893:125-126; Wissler and Duvall 1908:84-89). The following is an account of the *iniskim* ceremony included in the version of the buffalo rock origin myth recorded by Barrett:

> Upon her return to the camp, the woman told her husband to prepare the lodge for a ceremony, and to make an altar, by placing a circle of soft earth at the rear of the lodge before which were placed some buffalo chips and on these some wild sage. This finished, she told her husband to go about through the camp and find a little buffalo tallow, for so severe had been the famine, that nearly all of the buffalo tallow, even that which was saved for ceremonial purposes, had been used as food. While she was thus instructing her husband, he said to her: "You must be sure of what you are doing, so that we will not disgrace ourselves." To this she replied, "Follow my instructions and get the people to re-build the piskun, for I am going to bring the buffalo." This convinced him that his wife had received a powerful medicine and that she was able to perform a ceremony which would deliver the tribe from starvation. He then announced to the people that a buffalo ceremony would be held that night and sent everyone out to begin preparing the corral at the base of the cliff and the stone piles which were used as blinds in the buffalo drive.
>
> When everything was in readiness for the ceremony, the woman told her husband to announce that the new buffalo ceremony would be celebrated that night and request the old men of the tribe to come to the ceremonial tipi and bring their rattles. At nightfall she taught the people the buffalo songs which she had learned from the buffalo stone. The burden of the first song is as follows: "There are plenty of buffalo which we are going to have, for I am the powerful buffalo medicine." This song was sung repeatedly during the early part of the night and toward morning a second similar buffalo song was chanted.
>
> Near daybreak the dogs of the village suddenly began to bark, and, upon investigation, the people saw near the village, a big buffalo bull scratching himself against a tree.
>
> The woman then called for sweet grass, which she used as incense. As the incense was rising she sang a third song and presented her husband with the ceremonial fire-tongs: "You are a man, take these fire tongs for they are powerful medicine." She

> again placed sweet grass on the coals of the altar, and, as the incense rose she sang another song. As she did so, she placed her hands in the rising smoke as if to grasp it, first with the left hand and then with the right, bringing the smoke to her nostrils that she might inhale it.
>
> She then sang a fourth song and as she did so, she brought the buffalo stone from the bosom of her dress and placed it on the altar before her. This song repeated the words the buffalo stone had used in calling her when she was gathering wood: "Come here woman and get me, Woman can you not come and take me away, I am the most powerful medicine." She then sang a second verse: "This, my buffalo medicine always sits in the same place." The people then, for the first time, saw the buffalo medicine stone.
>
> The entire day following was spent by the people in making further preparations at the piskun and in the village for a big buffalo drive. At nightfall, the same ceremony was repeated. Toward morning, the best runner, Red Antelope by name, was selected to lead the buffalo herd into the piskun and after proper songs and ceremonies for his success, he went out in the direction of a large herd of buffalo which had miraculously appeared on the prairie. He passed to the windward of the herd and built a small fire, where the herd could get the scent of it. Incense was burned as part of a ceremony for success and Red Antelope easily led the herd within the lines of stone piles or wings of the piskun. When the watchers saw the herd coming, they signalled the camp to muzzle the dogs. This must always be done to prevent the dogs from barking and frightening the buffalo away.
>
> At the same time the buffalo woman, who, as is customary with officiating priests remained within the ceremonial lodge and continued to perform the buffalo ceremony, this time singing a song which was as follows: "The leader of the buffalo herd will not turn. I am going to eat him. They will all go over the cliff."
>
> Then the hunters began to spring up from behind the stone piles and frighten the buffalo, who ran bewildered over the cliff, about one hundred animals being killed. The buffalo woman continued to sing buffalo songs while the meat was being butchered. Many men wanted at once to eat the fat from the rump and many of the women wanted to eat the kidneys and other choice bits of the meat, but before this was done, those choice parts of each animal which are the due of the medicine man who performs the buffalo ceremony during one of these drives and to whose strong medicine the good luck in such a hunt is due, were brought to the lodge and given to the woman who had been a menial and a servant, but who had been favored by the buffalo spirit and had been given the buffalo ceremony that she might save her people from famine. (1921a:82-84)

Since the discovery of the original buffalo stone, many others have been found by the Blackfoot people, and such ceremonies continued to be conducted. Iniskim were also believed to procreate if left undisturbed for a period of time (First Rider 1969c:VI; McHugh 1972:52; Schaeffer n.d.; Wissler 1912:243). Thus, iniskim found their way into the medicine bundles of several shamans.

Clark Wissler recorded the following account of a pre-hunt ceremony practiced by an experienced Beaver Man:

> When in the winter the buffalo have drifted far away and the snow is so deep that the people cannot go out to hunt, they call on the owners of beaver bundles to bring them back. They give tobacco to the owners who invite a number of old men and women competent to assist in the ceremony and who have offered many prayers during their lives. Younger people are not invited. In the evening they assemble and take seats in the owner's tipi. When once seated, they must not change positions and give strict attention to the leader, or owner. First a smudge of sweetgrass is made, then the singing begins in which all take part.
>
> Old Woman, she has come in with happiness.
> Old Man, he has come in with gladness.
> Man, he has come in with happiness.
> Buffalo, them I have taken.
> It is powerful.
>
> Buffalo, you get up that all may see you.
> It has been long since we could make you out.
> Buffalo, they are away on top of yonder mountains.
> Buffalo, they are powerfully (natoji) coming down.
> That below, it is their medicine.
>
> Buffalo, on mountains they are powerfully (natoji) sitting.
> Buffalo, they are powerfully arising and powerfully coming down.
> That below, it is their medicine.
> Buffalo, they are powerfully running down.
> That below, it is their medicine.
>
> Buffalo, they are down on the earth.
> Buffalo, they are running around.
> That below, it is their medicine.
> Buffalo, they say, the ground where we are running about.
> That there, it is our medicine.
> Buffalo, they say, the ground where we are powerfully sitting.
> That there, it is our medicine.
>
> By this time the half of a buffalo rawhide, split down the back has been placed before the men to handle the rattles. The flattened stiff hide gives the rude profile of a buffalo and should lie with the head toward the door and the back toward the fire. Then the bag containing the rattles is held up as they sing:

Buffalo, them I have taken.
Buffalo, they are powerfully starting and looking
about for a powerful place to sit.
(With these words the bag is placed upon the rawhide).
Buffalo, them I have taken [bag untied].
Buffalo, I am in a hurry [rattles taken out].

Now, as I said before, those taking part must sit very still, which is tiresome. So the owner prays to the cranes as follows: - "Cranes, we are tired sitting still. We want to move about. You must hear our prayers and help us." Then everyone in the tipi moves or changes his position, stretches his legs out for a while and moves about in his seat. Then they sit as before. A smudge of sweetgrass is made. The owner prays to the ravens: "Help me, ravens, with your good luck. I am about to sing your songs."

That above, it is the raven's medicine.
The wind, it is the raven's medicine.
The raven, he is looking for buffalo.
He has found them, he has taken them.
Buffalo, them I have taken.

With these words the men take hold of the rattle handles, holding them so that the balls rest upon the rawhide and give the call of the raven. Each man holds a pair of handles with his left hand, as they sing:

Raven, he is looking around on the ground for a dead
buffalo to eat.
He has found it. It is powerful.

Then the men holding the rattles, still in the same position, peck with the right index finger twice on each rattle ball and at each call once like the raven.

Raven, he says when on the ground.
It is powerful.
I am looking about on the ground for a dead
buffalo to eat.
I have found it.
It is powerful.

Again the rattles are pecked four times and four raven calls are given. Then the rattles are laid on the rawhide with the balls toward the fire.

Raven, he says, I am looking for a powerful dead
buffalo to eat.
I have found it.

Then the men peck again at the rattles four times and call on the raven, but the rattles are not picked up.

Men (those present), they are my children who are
looking at me.
It is powerful.
Women, they are looking at me, they are my children.
It is powerful.

Then, as the owner holds both hands over the smudge he sings: "Rattles become me," meaning he looks well when using them, "Rattles I have taken," etc. They take up the rattles and make four passes as if to beat them on the rawhide; then begin to beat. All the time there is singing. At the end of this song all hold the rattles up, shaking them steadily and at the same time bring them down, crossing the arms and resting the rattles on the rawhide.

Now, the next song is for the bunch of buffalo hoofs and a tail in the beaver bundle.

Buffalo, they are powerfully arising and powerfully starting. Shaking the hoofs, they are laid down. The owner and his wife imitate the buffalo by butting at each other and bellowing. The owner slaps his right hand on the dust, then on his left wrist, elbow, and shoulder; then with the left hand this is repeated on the right arms; then he slaps both hands in the dust, then on his cheeks and on the forehead. The wife does the same. All this time there is singing. "Dust, it is the buffalo medicine." The meaning of all this is that the buffalo is painting, as when he throws dirt upon himself. Then the man takes up the hoofs in his left hand, shakes them over his wrist, elbow and shoulder; then takes them in his right hand, etc. He throws them down. His wife takes them up and goes through the same movements. Then she stands up with the hoofs. The owner stands with the tail. They dance, shaking the hoofs and the tail, prancing around to the right of the fire, acting and bellowing like buffalo. They circle the fire eight times, then take their seats and place the hoofs and tail upon the bundle. While handling the dust, they sing, "The buffalo's road: it is powerful." While prancing about, "When buffalo go to drink; it is powerful."

Now, the next songs are the most powerful in the beaver bundle and are only used to handle the buffalo. They are called charming-the-buffalo songs and must not be sung in any ceremony except this one and then only when the people are facing starvation. A smudge is made. A black stone pipe filled with tobacco raised by the beaver men, the stem painted with the seventh paint, is handed the owner. He holds the stem up toward the sun, "Sun, here is a smoke for you. The reason I am going to sing these songs is that I may fool the buffalo into coming back here. Old Woman, (moon), here is a smoke for you. I shall sing these songs to try to bring back the buffalo, so that we may all be made happy with food." Then he holds the pipe toward the mountains, "He-who-causes-winds-to blow, here is a smoke for you. Help me that my wish may be fulfilled for I am going to look for buffalo." (During this prayer, if the wind is blowing, it will cease.) Then, he hands the pipe to one of the men and all stretch out their arms toward the owner and then place them upon their breasts, making the receiving signs and crying out, "Our hopes are that we shall all be made happy in the morning with plenty of meat."

Then a wooden bowl, filled with snow is placed near the smudge. Pointing up with his right thumb, the owner sings, "Above there is a man who hears me; it is powerful," then with his left hand on the ground, "The earth hears me; it is powerful. I want it to blow in different directions." Then a change will be noticed in the wind. The owner takes up the hoofs and the tail, dips them in the snow, holds them up and shakes them. Then the wind will come from the direction in which the buffalo are. It will bring a very cold snowstorm, driving the buffalo toward the camp. They sing, "Buffalo, they are uncertain in their travelling. Buffalo are coming straight to us, I have taken them," and close with the receiving sign and a prolonged na-a-a.

A prayer, "Sun, help us that all the children may have plenty of food in the morning," is followed by-

Old Man says, buffalo are coming to this way.
I have received them.
It is powerful.
Old Woman says, etc.
Man says, etc.
Young-single-man says, etc.

This is repeated and all end with the receiving signs and a na-o-oo. Twice again these songs are sung.

Now, one of the men is sent out to announce that all are expected to stay indoors during the night. Then comes the fifth charming song:

Old Man says, buffalo are coming this way,
I have taken them; it is powerful.
Old Woman says, etc.
Man says, etc.
Young-single-man, etc.

Then the sixth song:

Old Man says buffalo are here. I have taken them;
It is powerful.
Old Woman, etc.
Man, etc.
Young-single-man, etc.

Now, at this song all the dogs in the camps begin to bark and the people know that in the storm the buffalo are drifting by. Then comes the seventh song:

> Old Man, he says, I am telling what is true.
> That above, he hears me.
> It is powerful.
> I am telling what is true.
> That below, he hears me.
> It is powerful.
>
> Old Woman, she says, buffalo I have received.
> It is powerful.
> Man, he says, buffalo I have taken.
> It is powerful.
> Young-single-man, he says, etc.
>
> Now this ends the ceremony. The next morning one of the young men goes up to the drive and drives the buffalo into the pound. As soon as they are killed someone hands an icicle in to the owner. This he thrusts into the ashes of the fireplace and, going outside, throws it to the east. At once, the weather moderates, making it more comfortable for the butchers. (1912:204-208)

According to D.C. Duvall, a Blackfoot Indian and anthropologist, this ceremony was held in the evening and would not only bring the buffalo nearby, but would also cause them to drift right through the Indians' camp. The wind would blow from whatever direction the herd was located for it was wind and storms that drove the buffalo to the people. The iniskim apparently were not actively utilized in this particular ceremony (Wissler 1912:209).

The ceremony described above was one of many pre-hunt rituals practiced by the Blackfoot. Grinnell described a simpler ceremony, "In the evening of the day preceding a drive of buffalo into the piskun a medicine man, usually one who was the possessor of a buffalo rock, In-is-kim, unrolled his pipe, and prayed to the Sun for success" (1893:229).

Buffalo charming ceremonies were performed not only by Beaver Men but by other medicine men and women as well. In addition to being found in Beaver Bundles, buffalo rocks were included in the bundles found in several of the Blackfoot painted tipis and in special bundles used specifically for keeping the iniskim (Barrett 1921a:81-84; Wissler 1912:243-244). The iniskim bundle was a square pouch to which a pipe stem and sweetgrass were fastened. Inside were the iniskim which were usually painted red, wrapped in buffalo hair and enclosed in the skin of an unborn calf. Two bags of paint were also kept in the pouch. The owner of the buffalo rock bundle hung the pouch on a tripod behind his lodge during the day and paid tribute to it every morning and evening with a smudge of sweetgrass (McHugh 1972:51; Wissler 1912:243).

Several elderly informants interviewed by Claude Schaeffer (n.d.) during the 1940s and 1950s provided accounts of buffalo rock rites. According to Harry Under Mouse, an altar was prepared inside the iniskim owner's tipi and several buffalo stones were set in a row upon it. After eating a meal, the owner would rub greasy hands over the stones to "feed" them. He would also pray to them to secure good luck. If one of the stones on the altar fell over prior to a hunt it indicated that the hunt would be successful. In another pre-hunt ceremony, described by informant Dick Sauderville, a buffalo stone was thrown into the fold of a blanket held by four or five women. This was felt to be imitative of a buffalo jumping over a precipice. As Robert Lowie (1963:168-169) noted, much of the magic of the Plains Indians was based on the idea that mimicry of a desired event could produce that event.

According to Schaeffer informant Adam White Man, the man or woman who conducted the buffalo drive rites was called the autopatau ("one who has persons sitting with him"). The autopatau had other medicine men and women sit with him during the ceremony. While the buffalo drive runners were out circling the herd, the autopatau took the iniskim in hand and, assisted by other shamans, sang buffalo songs. Another informant, Yellow Kidney, stated that the autopatau originally performed his ceremony in an undecorated lodge, until painted lodges were introduced. He gave Schaeffer a description of a drive rite performed in a Crow Painted Lodge prior to a drive which he said was conducted in the Porcupine Hills during the pre-horse period. The following passage is reproduced from Schaeffer's unpublished research notes:

> The medicine woman sings buffalo songs, and accompanies herself with rattles. The old and brave people assist her in singing. She directs the fastest runner to be brought to her. Then she lights the pipe and goes through the ritual. One or two "licorice roots" are employed next (Also used by the Horn and Horse Societies). The root is rubbed on the feet, head and back of the runner, in order to induce the buffalo to stumble and fall. Thus, it is hoped, the animals can be secured more easily. She then directs the runner to do his best.

> The medicine woman now calls upon the crow that has the most power. A bunch of crow feathers are tied together and attached to one side of the runner's head. The spot thus represented is the soft fat on the side of the animal's skull, which the crows feed on first. This is done so that drive participants can secure this fat for themselves. After affixing the feathers, the medicine woman starts to sing. The runner follows her movements, which are imitative of the bison(?)
>
> All of the above procedure is characteristic of the period preceding the discovery of the iniskim or buffalo stone. She takes a buffalo chip and molds it into the figure of a buffalo. She then covers it with grease and red paint, and places it besides the altar. The latter is located beside the smudge. The runner is now instructed to imitate the bison. Next she warns the people to watch the buffalo-chip figure. If it fails to move, in the ritual to follow, (See Wissler, 1908, 88) it indicates that the drive will be unsuccessful and people will continue to be hungry.
>
> Now the medicine woman starts to sing. All the men accompany her. The first song is:
> "You men! I want some kidneys to eat."
>
> All the people in the lodge watch the buffalo chip. The next song follows:
> "Now, you men! I want to eat the hip meat."
>
> After this the runner starts out of the lodge. As instructed by the medicine woman, he throws the bunch of feathers down besides the buffalo-chip figure. If the figure falls on top of the feathers, it indicates that the drive will be successful. . . .
>
> Yellow Kidney corrected previous account as follows. Iniskim rests upon sage, and sage, in turn, rests upon buffalo chip at altar. If or when stone topples over, it is a sign that buffalo will enter piskun.

Yellow Kidney stated that buffalo stones were usually used during fall and winter buffalo drives. He did not witness a drive, but did, as a youth, witness an iniskim ceremony performed in connection with the chase on horseback. This was sometime during the years 1875-1884. The Piegan were camped for the winter in the Marias River area of Montana. The owners of the Black Buffalo, Yellow Buffalo and Eagle-Trapping Lodges sang iniskim songs all night to lure the buffalo within close range. The words they sang were, "The Buffalo. I draw them near." The next morning a scout discovered a herd to be close to the camp. The hunters then pursued the buffalo on horseback.

Yellow Kidney also reported that the painted tipi bundles containing iniskim were opened in the spring and a ceremony was performed to induce buffalo to graze in the neighborhood of the camp. During the ceremony, a buffalo rock was passed among the participants. Each person held the stone close to his mouth and prayed for good luck and many buffalo.

Buffalo rocks were also used by the Sarcee and Hidatsa Indians. Stones of similar significance were found incidentally among the Gros Ventre, Assiniboine and Arapaho (Wissler 1912:245). The "medicine rocks" of the Crow Indians corresponded in many ways to the Blackfoot iniskim. They were shaped like part of an animal's body, usually the head, and were associated with buffalo charming. Among some tribes, balls of buffalo hair from a buffalo's stomach were considered to be useful buffalo charms.

Among the Assiniboine and Plains Cree, who were considered experts at buffalo impounding, certain rites were connected specifically with the buffalo pound method of hunting. These rites were performed prior to and during the hunt by the "Poundmaker", or "Master of the Park". These ceremonies will be described in the buffalo pound section of this report.

Among the Cheyenne, the Hoof-Rattle Society was responsible for enticing large herds of buffalo close to camp. Society members would congregate, chew herb medicine and spit upon an elk antler rattle carved to look like a rattlesnake. The back of the rattle was carved with a line of grooves at half-inch intervals. The society members would press the "snake's head" against a resonator of buffalo rawhide and rub the back of the rattle with the shin bone of an antelope. This produced a loud shrill call that was supposed to lure the buffalo toward the camp. "Buffalo Staffs", slender spruce poles wrapped with red and blue streamers and decorated with feathers and beads, were believed to be important to the outcome of Pawnee buffalo hunts (McHugh 1972:52-53).

Medicine men of the Sioux, Assiniboine and Pawnee used buffalo skulls in rituals designed to entice buffalo herds (Mails 1972:194). In June, 1833, Karl Bodmer found several rock piles topped with buffalo skulls in the hills around Fort Union on the Upper Missouri River. These cairns were apparently erected by the Assiniboine Indians to invoke the approach of buffalo herds (Thomas and Ronnefeldt 1976:66). According to McHugh

(1972:70-71), the Teton Sioux prepared themselves spiritually for the buffalo chase by visiting their "medicine buffalo" which was a buffalo figure scraped in the earth.

The most impressive and well documented buffalo charming dances were those of the Hidatsa and Mandan Indians, village tribes of the Upper Missouri area. The Bull Dance was performed by men when the tribe wished to entice buffalo close to the village. The dancers wore huge masks of buffalo heads and a buffalo tail and imitated a group of buffalo bulls by stomping, grunting and bellowing. The dance was performed continuously until herds appeared near the camp. Exhausted dancers were immediately replaced by other participants (Mails 1972:194; McHugh 1972:54). The White Buffalo Cow Society Dance was performed by women during times of famine. It was believed to summon back the herds who had left the area of the village. The women performed their dance while standing in a circle, rocking from side to side but remaining in the same spot (McHugh 1972:55). Henry Boller witnessed a White Buffalo Cow Society Dance in the late 1850s.

> The different members of the White Cow band began to assemble and soon the regular taps of the drum notified the camp that the great and important ceremony was in full progress. At one end of the lodge sat the musicians or drummers, three in number, who were untiring in their efforts, and aided their instrumentation by singing in a monotonous chanting strain. The women, comprising some forty or fifty matrons of the village, most of whose charms had unmistakably faded, were all attired in their quaintly garnished deerskin dresses. Each had a spot of vermilion on either cheek and their long black hair, which was carefully combed out and dressed with marrow grease, fell full and flowing over their shoulders, confined around the forehead with a fillet of white buffalo cowskin. One of them had a white robe (which is very scarce, and held in the highest esteem) wrapped around her. This white robe was the common property of the band, and in its great power as a Medicine were centered their hopes of bringing in the buffaloes. (1959:224-225)

The White Buffalo Cow dance was performed nightly until buffalo returned to the vicinity of the settlement. On the occasion witnessed by Boller it was necessary to perform the ritual nightly for over a week.

A Women's Dance believed to call buffalo was also found among the Gros Ventre. During the dance, which was a gift from the buffalo, the participants imitated buffalo (Cooper 1957:242-252).

Among all of the Plains tribes were individuals whose power to call game or prophesy its location was based on the experience of supernatural visions (Mails 1972:194; McHugh 1972:56). Once a man had made contact with the supernatural, which was usually achieved through fasting for several days in an isolated retreat, he was eligible to receive dreams about the location of herds (McHugh 1972:56). These men were often called upon to prophesy the location of a buffalo herd or to charm the buffalo close to camp before a hunt. Several accounts of such activities by Crow Indian visionaries were recorded by Robert Lowie, one of which follows:

> . . . a brother of Bear-cranes, while watering horses, caught site of some buffalo hair and a slice of fat some four inches long on a rosebush on the side of the creek. He brought the hair and the fat home with him, wrapped them up, and tied them to the top of the backrest. When he slept that night, he dreamt of a man singing and shaking a rattle and a great many buffalo came to the singer. When the dreamer looked at the man, the latter said, "Make a rattle like this, putting a buffalo hoof on it, sing and shake the rattle, and buffalo will come to you. The fat you picked up was myself; I am buffalo. Take a buffalo hide, paint it, take this rattle, wrap it up with the hide, and hang it up." He went and carried out these directions.
>
> At that time the Indians were starving for lack of game. The visionary went and cleaned his lodge. Beside his bed he placed dirt, in which he marked the tracks of big buffalo and of calves. He greased his lips with the fat, also took out the rattle, smudged it with incense of sweetgrass, and began to bellow like a bull. The next time he put the rattle on the same place and bellowed like a cow. The third time he imitated little calves, and the fourth time old buffalo. When the sun had gone down, he gathered together all the men in his tent and asked, "Where do you want the buffalo? "On that big level place on the other side of the hill." He sang the song he had dreamt, shook his rattle and rolled it in the mud as though it were a buffalo wallowing.
>
> He bade all the men go home and go to bed that night. "Tomorrow morning the buffalo will be here." The next morning he heard the bulls bellowing on the other side of the hill. "Get up, the buffalo are here." They got up, saddled horses, mounted and went. The whole plain was covered with buffalo and still more were coming. They were tired and could not run fast. The last time Bear-crane's brother worked his medicine my informant was a little boy of about five.
>
> Big-ox is also credited with having had the power of luring game. Once the people could not find any game. Big-ox bade them get a buffalo skull and put its nose toward the camp. In the night they

> began to sing. In the morning they saw six head of buffalo and killed them. The following morning they again found several head. When they had had enough, Big-ox bade them turn the skull around, then they did not see any more buffalo. Another man painted buffalo-tracks around the camp, smoked incense and sang, "I want to get buffalo in." He went out and cried, "Young men, get up-hill; I think I have seen some buffalo." Early in the morning some young fellow got up and saw some buffalo going up-hill. He went home to tell the rest and they killed some buffalo. Every morning they repeated this until they had plenty of meat. (1922b:354-359)

A buffalo-calling procedure of a slightly different sort that would have occasionally preceded the hunt was the hoop and pole game. Variations of this game have been reported for almost every tribe on the Plains (Wissler 1974:87). The game was usually played by two people. One player rolled the hoop, either netted or plain, along the ground while the other player tried to hit the hoop with darts. Although this game was employed for recreation, some tribes, such as the Pawnee, believed the game had the power to charm buffalo and sometimes played the game for this purpose (Lowie 1963:84; McHugh 1972:56; Wissler 1974:135-136).

The ceremonies described above exemplify the many and varied ritualistic activities which preceded communal buffalo hunts of the Plains Indians. Some of the other rites and ceremonies practiced by the Indians were related to success in buffalo hunting in a general way and were not specifically pre-hunt ceremonies. Some of these ceremonies will be discussed in the religion and mythology section of this report. It should be noted that ritualistic practices connected with the hunt did not necessarily stop when the men began the actual hunt. In many cases, shamans continued their buffalo drive medicine until the conclusion of the hunt. Thus, further information on the ceremonialism of the hunt will be found in those sections of this report describing specific communal hunting methods.

ENFORCEMENT OF HUNT RESTRICTIONS

Among all Plains Indian groups, the hunting of buffalo by individuals or small groups was prohibited while communal hunt preparations were underway, in order to ensure that the buffalo were not startled and set to flight before the communal hunt, thereby jeopardizing the welfare of the entire band or tribe. Grinnell, writing about the Cheyenne Indians, described the development and significance of this custom within Plains Indian culture.

> The camp moved about from place to place, following the buffalo; and, as a result of the habits of these animals, a set of tribal laws had grown up to govern the hunt. Since the Cheyennes depended on the buffalo for food, it was obviously necessary that the hunting should be organized; in order first, that large quantities of food might be killed at one time; and second, and more important, that the animals which were to furnish this food should not be disturbed or frightened and so driven beyond the reach of the people. No doubt the laws governing this hunting developed slowly, but they long existed. Their utility was generally recognized, and they were supported by public opinion. (1923, Vol. 1:262)

When individual bands of Indians were on their own, which was the case during most of the year, band members required little more than social pressure from family and friends to refrain from breeching hunt restrictions (Ewers 1958:97; Grinnell 1923, Vol. 1:262; Haines 1970:84). However, when several bands of Indians were together in a large encampment, hunting restrictions were officially enforced by a group of men appointed to act as the "camp police," or "soldiers" (Berthong 1963:32; Curtis 1909, Vol. 6:108; Denig 1930:444-445; Eggan 1969:53; Ewers 1955:163-164; Ewers 1958:97; Flannery 1953:44-45; Grinnell 1923, Vol. 1:262-263; Haines 1970:85; Haines 1976:172; Leonard 1959:141-142; Lowie 1963:125-126; Mails 1973:85; Thompson 1916:358; Wissler 1974:97). As Haines (1970:84) noted, it would have been difficult to keep order in a camp numbering in the thousands without the existence of some type of law enforcement group. Among the nomadic Plains tribes, large encampments generally took place during the late spring and summer, when the hunting bands followed the buffalo from sheltered wintering grounds onto the open plains. During this season, the bands gathered in tribal camps for religious festivals and for protection from enemies while they hunted the buffalo, primarily by the surround and the chase on horseback methods. Official enforcement of hunting restrictions by camp police was therefore characteristic of these methods. In accounts of those communal hunting methods generally conducted only in the fall and winter months, when the main social unit was the band, the enforcement of hunting restrictions by camp police is rarely mentioned. Ewers noted that "this regulation was less common in the smaller band camps" (1955:155).

All of the nomadic Plains tribes, except the Comanches, employed camp police during large encampments (Haines 1976:172). The camp police, or soldiers, consisted of any one (or more) of the men's societies of the tribe. The call to perform this service was at the request of the Chief or Council of Chiefs, for a specific occasion or period of time (Flannery 1953:45; Hoebel 1960:53; Mails 1973:44; Wissler 1974:97). In addition to controlling the organization of the communal buffalo hunt, the soldiers served as camp sentinels, maintained peace and order among camp members, and punished those who violated tribal codes (Mails 1973:44). David Thompson provided the following account of the camp police of the Piegan Indians:

> In every large camp the Chiefs appoint a number of young men to keep peace and order in camp; in proportion to its size; these are called Soldiers, they are all young men lately married, or are soon to be married, they have a Chief, and are armed with a small wooden club. They have great power and enforce obedience to the Chiefs. (1916:358)

Curtis (1909, Vol.6:108), Ewers (1955:82; 1958:155,163) and Wissler (1913:370) also discussed the enforcement of hunt restrictions among the Blackfoot tribes. Ewers provided the following description:

> In summer, when all of the bands of a tribe gathered prior to the Sun Dance encampment, the head chief, through his announcer, declared the hunting regulation in force. All tribal members understood this meant that anyone who sought to kill buffalo on his own before the tribal hunt was organized would be severely punished by society members selected to act as policemen. (1955:163)

A similar account of this practice among the Cheyenne was written by Grinnell: "The chiefs decided when the buffalo surround was to be made. They gave their orders to the soldiers, and from that time forward the soldiers had charge of the hunt. The day before the surround, it was cried through the village that on the morrow all would chase buffalo" (1923, Vol. 1:263). The Crow Indians, according to the fur trader Zenas Leonard, also followed a similar procedure.

> When their families are in want of provision, or desirous of having a hunt, one of the principle men, who might be called the Trumpeter, will mount a horse and ride round throughout the encampment, village, or settlement and publicly proclaim that on a stated day the whole tribe must be prepared for a general hunt, or surround. (1959:143-144)

Prior to the communal hunt, the Assiniboine soldiers congregated in a large lodge in the center of the camp circle (Denig 1930:530; Kurz 1937:85; Lowie 1909a:35). The artist Rudolph Frederich Kurz spent the years 1846 to 1852 along the Upper Missouri River and recorded the following account of Assiniboine preparations for the chase on horseback:

> As soon as they catch sight of the animals in the distance the "soldiers" assemble in their hut (so-called assembly lodge) to consider whether they will go on the hunt. Their decision is reported from the "lodge" by a crier. Nobody is allowed to take his own course contrary to the decision of the "soldiers" on the buffalo hunt, because, according to the rules of the sport, everyone is to enjoy equal opportunities. (1937:85-86)

According to Edwin Thompson Denig, a contemporary of Kurz, the Assiniboine soldiers also sent out runners to look for buffalo. When the hunt was initiated, the camp police were responsible for ensuring that the hunting party approached the herd in regulated manner.

> The soldiers hold a council with the chief in the soldiers' lodge and prohibit any individual hunting ahead of the buffalo, also send runners daily on discovery, to observe what progress they are making toward the camp, their numbers, etc., and when they report them to be near enough a meeting is held in the soldiers' lodge, the time for the hunt appointed, and notice given to the camp by the haranguing of the public crier. At daybreak all the horses are caught and saddled, and each of the horsemen is provided with a bow and a quiver of arrows. A number who have no horses arm themselves with guns, and at a signal from one of the soldiers the party moves off in single file or line. Those who have the fastest horses go in front, after them the other horsemen. Then the foot hunters, and lastly the women with their dogs and travailles. The soldiers ride along each side the line (which is sometimes a mile and more in length) and observe whether the line of march is preserved, and that no one leaves singly. Were a dog to run out of the line it would be shot with an arrow immediately. (1930:530-531)

The practice of regulating the approach to the herd was an important part of the surround and chase on horseback methods of the Plains Indians. It ensured that each hunter had a fair chance in the hunt (Ewers 1955:157; Hoebel 1960:53-54; Leonard 1959:141).

The punishment for hunters who rushed in prematurely usually consisted of a whipping or beating and the destruction or confiscation of the offender's property. Hoebel provided the following description of a "typical case" among the Cheyenne:

> All the hunters were in a line with the Shield Soldiers to restrain them until the signal was given, for the scouts had reported buffalo. Just as the line came over a protecting ridge down wind from the buffalo, two men were seen riding in among the herd. At an order from their chief, the Shield Soldiers charged down on them. Little Old Man shouted that any who failed or hesitated to beat the miscreants would be beaten themselves. The first to reach the spot killed the two hunters' horses. As each soldier reached the criminals, he slashed them with the whip. Their guns were smashed. (1960:53-54)

The severity of punishment of violations of hunt restrictions apparently varied among the tribes according to the tribe's wealth and amount of food on hand (Ewers 1955:163-164; Haines 1976:178). It was generally lightest among the Comanches and most severe among the Ponca and Plains Cree (Ewers 1955:164). David Thompson described a relatively mildly punished breach among the Piegan Indians.

> The same evening a Chief walked through the camp informing them that as the Bisons were too far off for hunting they had given orders to the Soldiers to allow no person to hunt until farther notice. Such an order is sure to find some tents ill provided. While we were there, hunting was forbidden on this account. Two tents which had gambled away their things, even to their dried provisions, had to steal a march on the Soldiers under pretence of looking after their horses; but finding they did not return were watched. In the evening of the second day they approached the camp, with their horses loaded with meat which the Soldiers seized, and the owners quickly gave up; the former distributed the Meat to the tents that had many women and children, and left nothing to the owners. (1916:358-359)

Ewers related a much harsher punishment described to Joseph Dixon by a Piegan informant, "The culprit's weapons were broken, his clothes torn; his saddle broken to pieces, his rope and whip cut into small bits, and his horse's tail bobbed" (1955:163). Denig described the severe punishment applied among the relatively horse-poor Assiniboine.

> Should any person or persons violate these laws, after the decree of the soldiers' lodge has been published, they (the soldiers) meet him on his return home, take his meat, kill his dogs, or horses, cut his hides up, cut his lodge to pieces, break his gun and bow, etc. If the individual resists or attempts to revenge any of these things he is shot down on the spot by the soldiers, or struck down by a tomahawk and pounded to death. Occasionally they are also thrashed with bows, in addition to the breaking of the gun, etc. The writer has seen two killed and many severely thrashed for these misdemeanors.

> The consequences of destroying the hunts are serious to the whole camp, hence the violent penalty and examples are made occasionally which serve to increase the respect and fear of the soldiers as a body, and enables that business to proceed with order.
>
> In all this the soldiers are supported by the whole camp, and it is in them as a body that decisions are invested with a binding force, if force be necessary. (1930:445)

De Smet (1972:149) gave a similar account of the punishment among the Assiniboine in a rare description of the employment of camp police in a buffalo hunt using the impounding method. (This account is related in the section of this report entitled "Buffalo Pounds"). Among some tribes, however, an offender's property was sometimes replaced, at least in part, if he did not resist the punishment and did not seek revenge for it (Ewers 1955:164; Haines 1976:179; Hoebel 1960:54; Lowie 1909a:36; Skinner 1914a:495; Thompson 1916:163). Punishments for hunt violations have been described for various tribes by Berthong (1963:32), Grinnell (1923, Vol. 2:54), Lehmer (1963:212) and Leonard (1959:142). Ewers (1955:164) composed a list summarizing the penalties applied by a number of tribes of the Plains and peripheral areas (Table 1).

It was obviously difficult for some Plains Indian hunters to refrain from venturing out alone or charging prematurely, particularly in times of great hunger. This is not surprising, given that successful hunting was not only the major basis of subsistence but also a significant source of prestige. The following information, recorded by Bowers, illustrates dramatically the tremendous self-restraint that would have been necessary in some cases. It describes circumstances common to the winter camps of the semi-sedentary Hidatsa Indians.

> According to informants, the buffalo herds were easily startled when they first reached the wooded bottoms from the prairies -- in fact, whenever a herd first moved to an new pasture -- and it was necessary to leave them undisturbed for a few days to graze and get settled in their new environment, or they were likely to move on. During this time, Wolf Chief said that it was very hard indeed to restrain one's self, particularly when the children were crying from hunger and cold. The people stayed within doors and could often see the buffaloes walking between the lodges or hooking at dogs that had not been securely tied. (1965:60)

After a few days, apparently, the tribe would hold "two or three large surrounds" to secure sufficient meat for their winter needs (ibid.:60-61).

Table 1. Penalties for Premature Hunting in Tribal Buffalo Hunts (quoted verbatim from Ewers 1955:164).

Tribe	Penalty	Reference
Plains Cree	Offender's lodge and all possessions destroyed; generally given gifts to compensate his losses at later date.	Mandelbaum, 1940, p. 227.
Plains Ojibwa	Offender flogged. His shirt cut to shreds.	Skinner, 1914, p. 494.
Crow	Offender beaten; arms broken or lodge cut to pieces.	Larocque, 1910, p. 60.
Cheyenne	Offender whipped. If persisted in disobedience, his lodge cover and poles destroyed, and perhaps his horses killed.	Grinnell, 1923, vol.1, p. 262.
Wind River Shoshoni	Offender's horse whipped over the head; all hides taken destroyed.	Lowie, 1915, p. 819.
Flathead	Offender received severe whip lashing at hands of chief.	Turney-High, 1937, p.118.
Omaha	Offender knocked down and flogged.	James, 1923, vol. 1, p. 208.
Ponca	Offender beaten, his horses and dogs destroyed. Next day presents given him to restore his losses.	Skinner, 1915, pp. 796-797.
Pawnee	Offender given merciless flogging.	Dunbar, 1880, p. 330.
Kansa	Offender severely whipped, but property not destroyed.	Skinner, 1915, p. 819.
Osage	Offender flogged with whips.	Tixier, 1940, p. 189.
Kiowa	Offender's horse shot.	Battey, 1875, pp. 185-186.
Comanche	"Only punishment meted out to offenders was to reprove them."	Lowie, 1915, p. 812.

In summary, the hunt regulations of the Plains Indians were superficially paradoxical (Hoebel 1960:64). When buffalo were scarce or in very small herds, the Indians could hunt whenever and however they pleased; when the buffalo were plentiful, however, their hunting practices were restricted. Without such restrictions, the Indians could easily be faced with the more dire paradox of starving in the midst of plenty. Given the importance of the buffalo to the Plains peoples it is understandable that, as Lowie (1963:125-126) pointed out, hunt restrictions prior to a communal hunt were one of the few "germs of strict government" which existed among the Plains peoples.

COMMUNAL BUFFALO HUNTING METHODS

Essentially, four methods of communal buffalo hunting are described in ethnographic and historic literature on the Plains Indians: impounding, driving buffalo over a precipice (buffalo jumps), surrounding, and the chase on horseback. The first three are considered to be traditional methods that originated in the pre-horse period (Ewers 1958:11; Wissler 1974:24-25). During the historic period, the methods of impounding and driving buffalo over a precipice were gradually abandoned as the Plains tribes grew wealthy in horses and adopted more efficient and flexible methods of collectively hunting buffalo. The surround, which was originally conducted on foot, was retained as a method performed on horseback. With the proliferation of the horse throughout the Plains a new communal procedure was developed, the chase on horseback, or "buffalo running", and became very widespread. This method was favoured by the Blackfoot tribes during the mid to late nineteenth century. The communal hunt on horseback had obvious advantages over the traditional methods: (1) the hunters did not have to execute the hunt in specific locations possessing certain geographic features, such as timber or a precipice; (2) the hunt was less dependent on the proximity and habits of the buffalo and on special human skills (e.g., buffalo decoying) possessed by relatively few men; and, (3) the hunt was less affected by unexpected changes in the environment, such as a sudden change in wind direction. Hunting on horseback was also more efficient, taking as little as fifteen minutes to complete (Catlin 1926, Vol.1:226), while the earlier methods could take a number of days to execute successfully.

During the eighteenth and nineteenth centuries, southern tribes such as the Apache and the Kiowa, were the first to possess horses and became wealthy in horses much earlier than northern tribes, such as the Blackfoot, Sarcee, Crow, Gros Ventre, Assiniboine and Plains Cree. Because most historic accounts of nomadic Plains culture were recorded during the late eighteenth and the nineteenth centuries, after most tribes had abandoned the traditional communal hunting methods, the few accounts of these methods are restricted to the more northerly tribes.

Another factor influencing the availability of historic data on traditional communal hunting methods was the fact that most of the information was recorded by fur traders, missionaries, and travellers concentrated primarily in the timbered areas bordering the northern plains and along the Upper Missouri River. Consequently, accounts of buffalo impounding, the traditional drive method usually utilized in timbered areas, are quite numerous. Accounts of buffalo jumps, which were generally used in areas not suitable for fur trade posts, are far less common.

The traditional drive methods have much in common. Historical writers often tend to view them as variations of one method and apply the term "buffalo pound" to both types of traps and ignore the term "buffalo jump". Ethnographers tend to discuss the two methods as versions of "buffalo drives". Therefore, in the ethnographic and historic descriptions of traditional drive methods, a clear distinction between "buffalo pounds" and "buffalo jumps" is not easily made. For the purpose of this discussion, the writer found that the information was best categorized as a buffalo pound or jump based on the criterion of the presence or absence of a corral in the drive procedure.

The two other methods of communal hunting, the surround and the chase on horseback, have many similarities. Both involve approaching and attacking a herd of buffalo in a regulated, military-like fashion.

The four methods outlined above will now be described in greater detail, and the general descriptions will be followed by examples of variations of these methods.

BUFFALO POUNDS

Buffalo pounds, also known as buffalo parks, corrals, pens, drives, and, among the Blackfoot tribes, as "pis´kuns" (Grinnell [1893:228] translated this word as "deep-blood-kettles") are almost exclusively described as fall and winter hunts in ethnographic and historic literature. Impounding was conducted after the buffalo had migrated to the timbered river valleys, parkland and foothills for shelter during the winter season. Grinnell reported that, among the Blackfoot tribes, "in the early autumn, all the pis´kuns were repaired and strengthened, so as to be in good order for winter" (1893:234). Maximilian stated that, in hunting the buffalo, the Blackfoot "make in the winter season, large parks into which they are driven" (1906, Vol. 23:108). Ewers (1968:163) and Schaeffer (1978:244) emphasized that fall to early winter was the predominant period for impounding buffalo among the Blackfoot. Peter Fidler, who wintered with the Piegan Indians in 1792-1793, witnessed the operation of buffalo pounds and jumps throughout the winter. Of the Assiniboine, Alexander Henry (the Younger) noted: "In summer they chase buffalo on horseback and kill them with bows and arrows; in winter they take them in pounds" (Coues 1897:518). Observing the Assiniboine during the 1790s, the trader John McDonnell noted, "These people generally winter together in large camps and make what the French call, parcs. . . This seems to be an ancient custom amongst all Indians inhabiting the plains. . ." (1889:279). On the hunting habits of the Plains Cree, Hector and Vaux, members of the Palliser Expedition, commented, "In winter these Indians construct 'pounds' for capturing the buffalo in great numbers. . . " (1861:249). Skinner reported for the Plains Ojibway, ". . . in winter the great method of hunting was by impounding" (1914a:497).

Thus, virtually all eye-witness reports of buffalo pounds describe fall or winter occurrences, with the exception of Henry Youle Hind's description of a Cree pound in operation during July 1858 (1971, Vol. 1:355-359). Hector and Vaux, however, questioned the accuracy of Hind's account, ". . . though we were in this country for three years, and at the very place which Mr. Hind describes, we never heard of this practice of the Indians at a period of the year when the snow was off the ground" (1861:250). Audubon did not describe an actual incident of impounding during summer but remarked that "it is done at all seasons" but "more general in October and November, when the hides are good and salable" (1960, Vol. 2:145). Robert Jefferson, who was apparently knowledgeable about Cree practices during the 1870s and 1880s, commented that impounding was seldom done but "either summer or winter would do" (1929:93). Jenness (1938:17) found that Sarcee informants recalled that pounds were used in the summer only. According to Arthur (1979:81), pounds were used by the Cree in both summer and fall during the late nineteenth century. As these ethnographic references suggest, impounding in seasons other than fall and winter probably did take place occasionally. No doubt, if the opportunity arose during the spring or summer months, the Indians would have taken advantage of the situation. However, the predominant season for impounding apparently spanned the fall and winter months.

Impounding was the most complex of the communal buffalo hunting methods of the Plains Indians. For a successful hunt to take place, several variables had to be considered, some of which were very difficult to control. Robert Jefferson summarized these specific requirements as follows:

> Success depended upon too many circumstances. The ground had to lie correctly; timber should be available; the game has to be fairly plentiful and within easy reach. Also, someone able to guide the anmals in the right direction was indispensable. Under the most favorable conditions, too, the herd often escaped. (1929:93)

In addition to the factors listed above, the direction of the wind and position of the buffalo had to be such that the buffalo were always downwind of the pound and encampment. Characteristics of the buffalo, such as its keen sense of smell, poor eyesight, curiosity and tendency to follow a herd leader, were also taken into account. As Jefferson noted, with so many variables involved, it was not uncommon for an impounding attempt to fail. Eye-witness accounts testify to the failures as well as the successes of this communal hunting method. For example, during 1772-1773, the trader Mathew Cocking wintered with Assiniboine and "Archithinue" (either Blackfoot or Gros Ventre) Indians and saw only a few buffalo impounded during the season (1908:109-116). Alexander Henry (Coues 1897:576-577) witnessed the unsuccessful impounding efforts of a group of Northern Blackfoot near the Vermilion River during three days in December, 1809. According to Henry, the Indians failed because "the wind was wrong" (ibid.:576). Peter Fidler also witnessed several unsuccessful attempts (1792-1793 journal). If the natural elements were not to blame for the failures, the pre-hunt ritualist (McHugh 1972:52) and/or the man in charge of leading the buffalo into the pound were deemed responsible for the failure. Failure to direct the buffalo into the drive lane was extremely humiliating for the man involved (McDougall 1896:297; Schaeffer n.d.).

A description of the physical components and the procedure of the buffalo pound method is provided below, followed by the presentation of ethnographic and historic accounts of buffalo pounds on which this description is based. It should be noted that information on Plains Cree and Assiniboine buffalo pounds dominates the data on this hunting technique, mainly because of two factors. First, the Plains Cree and Assiniboine were much poorer in horses than the other northern Plains tribes and were the last of the tribes to possess horses in substantial numbers. Consequently, they were the last to abandon this technique altogether. Second, the hunting territories of the Plains Cree and Assiniboine were such that these tribes came in contact with Europeans earlier and more frequently than the other northern Plains tribes. Consequently, the culture of these tribes is more thoroughly documented, and more incidents of buffalo impounding were witnessed and recorded than for other tribes. The fact that the northern Plains tribes practiced traditional drive methods quite far into the nineteenth century proved to be a definite advantage to ethnographers such as G.B. Grinnell, Clark Wissler and John Ewers, whose fieldwork during the late nineteenth and the twentieth centuries enabled them to record information on the traditional methods while it was still fresh in the minds of informants.

THE PHYSICAL COMPONENTS OF A BUFFALO POUND

Buffalo pounds were generally built on three types of terrain: (1) on or at the base of a natural slope (Cocking 1908:109; Denig 1930:532; De Smet 1972:148-149; Ewers 1955:165; Harmon 1911:286; Hind 1971, Vol. 1:356-358; Jefferson 1929:92; Jenness 1938:14-16; Lowie 1909a:10-11; McDougall 1896:273; M'Gillivray 1929:43-44; Palliser 1863:71; Quaife 1921:284); (2) on level ground (Brown 1919-1920:79; Ewers 1955:165; Franklin 1969:112; Grinnell 1893:230; Grinnell 1923, Vol. 1:266; Hector and Vaux 1861:249; Jenness 1938:15-17; Larpenteur 1898:410; Mandelbaum 1979:52-55; Skinner 1914a:497; Skinner 1914b:525-526; Umfreville 1790:160; Weekes 1948:15); or (3) beneath a precipice high enough to keep the buffalo from leaping back out of the corral, but not high or steep enough to kill or incapacitate most of the buffalo (Audubon 1960, Vol. 2:145; Ewers 1955:165; Fidler: December 27, 1792; Grinnell 1893:232; Coues 1897:520; Skinner 1914b:524; Weekes 1948:15). Pounds were also sometimes built between two hills, the valley between serving as a natural funnel through which the buffalo were driven (Denig 1930:532; Coues 1897:518; Hind 1971, Vol. 1:356-357; Wissler 1910:48).

When the pound was located on or at the base of a slope, the entrance of the pen faced the summit. The buffalo were unable to see the pound until they were driven over the summit and were just about to enter the trap. Once the buffalo were in the pound, the slope apparently prevented them from climbing out through the entrance. According to a Blood Indian interviewed by Ewers (1968:167), a number of poles were placed crosswise on the slope just above the pound entrance. The poles were covered with manure and water which froze, causing the entrance to be slippery, thus preventing the buffalo from escaping through the entrance. According to one historic account, "The situation of a pound was generally on the south or east side of a gently rising hill, the west or north side of this hill being prairie or open country, and the east or south side of it timber" (McDougall 1896:273). The same writer (1896:272) also stated that the pound entrance faced the same direction in which the buffalo were migrating, because buffalo, when startled, tend to run in the direction from which they came. Mandelbaum (1979:54) stated that the entrances of Plains Cree pounds were to the east.

If the pound was on level ground, a causeway was built sloping gently up from the ground in front of the corral to the walls of the corral which were sometimes cut away to match the height of the causeway (Franklin 1969:112; Grinnell 1893:230-231; Hector and Vaux 1861:249; Jefferson 1929:92; Jenness 1938:15-17; Mandelbaum 1979:53-54; Weekes 1948:14). This created a drop estimated to be approximately three feet by McDougall (1896:274), four feet by Grinnell (1893:230-231) and six to eight feet by Hector and Vaux (1861:249). Mandelbaum (1979:54) reported that the Plains Cree built the entrance to the pound between two trees. A log was lashed between the trees and the inclined plane was made to rest on the cross-pole. Whenever possible, the entrance of the pound was built on the edge of a bluff to lengthen the drop the causeway created at the entrance (cf. Hind 1971, Vol. 1:358). The causeways to pounds on level ground served the same purpose as the natural slopes or small precipices utilized in other pound locations. The causeways were usually built of logs; however, one account (Franklin 1969:112) mentions an inclined plane of snow at the entrance.

Pound entrance gates are mentioned in some ethnographic accounts. Skinner (1914b:524-525) stated that a gate was used in Plains Cree pounds, but his description is vague. According to Weekes (1948:14-15), a curtain of dried buffalo hides was hung at the entrance after the buffalo had entered the pound. Grinnell (1893:231) stated that the Northern Blackfoot blockaded the pound entrance with cross-poles and then hung buffalo robes over the blockade.

When a pound was built below a precipice, the wall of the precipice was usually incorporated as one wall of the pen (Fidler: December 27, 1792; Grinnell 1893:228-229). According to Grinnell, as a rule, Blackfoot pis´kuns were built under low-cut bluffs.

The corral was usually made of tree trunks and brush cut from the immediate vicinity of the pound. Peter Fidler observed a Piegan corral "made of wood being a strong fence about 5 feet high..." (December 27, 1792). According to Henry, "Trees were cut down, laid upon one another, and interwoven with branches and green twigs" (Coues 1897:518-519). De Smet noted, "To inclose it in a circular form, stakes are firmly fixed in the ground, and the distance between them filled with logs, dry boughs, masses of stone - in short, with whatever they can find that will answer the purpose" (1972:149). James Hector observed that a band of Cree Indians increased the height of the fence near the entrance of the pound "by skins stretched on poles, for the purpose of frightening the buffalo from jumping out" (Palliser 1863:71). Kootenai Brown, recalling buffalo pounds used by the Cree, stated, "On the stakes were hung pieces of old cloth and buffalo skin and around the tops of the stakes a string of rawhide binding them all together" (1919-1920:79). In some cases, stakes were laid at an angle over the lowest poles in the corral, with the butt ends braced in the ground outside and the painted end projecting into the corral. This measure was designed to impale any buffalo who tried to break through the enclosure (Ewers 1968:166) and to impale wolves, who usually entered the pound to feed on the leftover carcasses after the

Indians had finished butchering and had left the pound. Most descriptions of pounds stress that the pens had to be strong and sturdy; however, it has also been noted that this was of secondary importance to the pen having a solid appearance. Grinnell stated that "the enclosure might be only a fence of brush, but even here the buffalo did not push against it, but ran round and round within, looking for a clear space through which they might pass" (1893:229). Grinnell also observed that buffalo would only dash against a barrier if they could see through it to the outside (ibid.:231). Kootenai Brown recalled of the Cree pounds he had seen, "The remarkable thing about this method of taking buffalo was that the corral was a flimsy thing that a child could have pushed over, but the animals would mill about it afraid to touch its sides" (1919-1920:79). Hind (1971, Vol. 1:357) described an incident where the buffalo did break through a Cree pound after perceiving an opening in the corral. Henry witnessed the operation of an Assiniboine pound during which "the oxen made several attempts to force the fence" but the Indians drove them back from the sides of the enclosure by "shaking skins before their eyes" (Quaife 1921:285-286). Audubon (1960, Vol. 2:146) and Larpenteur (1898:411) reported that the buffalo would break through Gros Ventre and Assiniboine corrals occasionally, particularly when the corrals were too small for the number of buffalo driven into them.

Corrals were either circular, square or rectangular, although they were most frequently said to be round. Lewis (1942:35) stated that, during the nineteenth century, the Blackfoot enlarged their corrals by adding appendages. Jefferson (1929:92) commented that the Cree occasionally built two corrals, one opening into the other. The missionary Robert Rundle, travelling from Carlton House to Fort Pitt in 1841, apparently observed such a pound along the Battle River, a pound which was incredibly successful, "Passed near an old buffalo pound, shaped 3 circles, at which my guide "Friday" was present at the capture of 2450 and left; the Indians still killing them" (Dempsey 1977:78). Although the effectiveness of a multi-corral buffalo pound seems questionable at first, when one considers the remarks of Grinnell and Brown regarding the behavior of buffalo in a pound, the idea of a multi-corral pound becomes somewhat more credible. The buffalo, upon perceiving the opening at the back of the first corral, would rush through the opening and into the next corral. One must wonder, however, if the pressure of the buffalo trying to crowd through the opening would not often have caused such a corral to break under stress.

Reports of the dimensions of corrals varied. Estimates of height range from four feet (Quaife 1921:284) to eight feet (Grinnell 1893:230). The area enclosed in a corral apparently ranged from approximately half an acre to one and one half acres. According to Alexander Henry (the Elder), the "common size" of the pounds used by the Assiniboine was from sixty to one hundred yards in circumference and about five feet in height (Quaife 1921:284). Estimates of the width of the pound entrance range from ten feet (Jefferson 1929:92) to twenty feet (Harmon 1911:286; McDougall 1896:274).

When a pound was built on a slope or on level prairie, fences constructed of the same materials as the pound usually flared out from the entrance for a distance ranging from one hundred feet (Umfreville 1790:161) to one and a half miles (Cocking 1908:109). When a causeway was used, the fences bordered the causeway and then diverged from the base of the causeway (McDougall 1896:274).

Usually extending from these wings were what modern writers refer to as "drive lines". In most historic accounts, these are described as lines of stakes or piles of buffalo chips, earth or brush, arranged at regular intervals in lines diverging from the wings of the pound entrance or from the edge of the precipice above the corral. These formed a drive lane which was usually described as V-shaped. The piles of buffalo chips, earth or brush were sometimes referred to as "Dead Men" (Fidler: December 27, 1792; Coues 1897:518; Hind 1971, Vol. 1:356); Fidler noted that these were knee-high in Piegan pounds. Mathew Cocking described the drive lines of a pound used by the "Archithinue" (Gros Ventre or Blackfoot) Indians in 1772, ". . . for about 1 1/2 mile distant, Buffalo dung, or old roots are laid in Heaps, in the same direction as the fence" (1908:109). With regard to Assiniboine drive lines, Denig reported "piles of earth about 3 feet high" (1930:532); Larpenteur mentioned "snow or buffalo chips" (1898:410); McDonnell reported "tufts of bushes and other obstacles" (1889:279-280); and Henry reported "three or four cross-sticks in imitation of a dog or other animal 'extending' for about two miles" (Coues 1897:518-519). John McDougall referred to the drive lines of the Cree as "watching waiters" and described them as "bundles of willows placed on end at regular intervals for a mile or more, their outside terminals being fully a mile apart" (1896:274). Hector and Vaux reported that the Cree employed "blackspots of brushwood, or other substance, laid in converging lines, for miles over the snow" (1861:249; cf. Hind 1971, Vol. 1:356; Jefferson 1929:92; Mandelbaum 1979:54). Ewers (1968:166) provided a similar description of the drive lines of a Northern Blackfoot pound. A Cree pound was observed by Franklin on February 8, 1820, "For about a mile on each side of the road leading to the pound, stakes were driven into the ground at nearly equal distances of about twenty yards; these were intended to look like men, and to deter the animals from attempting to break out on either side" (1969:112). Discussing the Indians "on the east side of the Rocky Mountains", the trader Daniel Harmon reported that "two ranges of stakes, at about an angle of ninety degrees from each other, extending about two miles into the plains" (1911:286) were used. According to Harmon, these stakes were approximately forty feet apart and each stake was topped with a wisp of hay or buffalo dung. Indians were stationed beside the stakes "to keep them in motion so that the buffaloes suppose them all to be human beings" (ibid.). Umfreville (1790:161) recorded a similar description, although he reported poles that were "nearly fifteen feet long each" with men lying disguised at the foot of the poles ready to jump up and frighten any buffalo that tried to run outside the lane. Wissler described the drive lines of buffalo pounds as an open line of sticks ". . . about two miles in length" (1910:48). Piles of snow were apparently used by the Plains Cree (Arthur 1979:80; Skinner 1914b:524) and Plains Ojibway (Skinner 1914a:498).

The ethnographers George Arthur (1975:80), Hugh Dempsey (1957a:1), George Grinnell (1893:229) and Robert Lowie (1963:16) pointed out that drive lines of rock piles, some of which can be seen on the Plains today, were also used. However, in historic accounts of buffalo pounds, mention of rock pile drive lines is curiously absent. There would have been an advantage to using buffalo dung or brush instead of rocks, since they are lighter materials and, therefore, easier to work with.

In some cases, drive lines were not constructed. Instead, people were simply stationed in rows diverging from the pound (De Smet 1972:150). At other times, people (Lowie 1909:11) or lodges and mounted men (Denig 1930:536) were used to extend the length of the drive lines. In some cases, more than two drive lines were employed. Henry remarked that "double rows of them are planted in several other directions to a still greater distance" (Coues 1897:518-519). Grinnell reported the use of a third drive line by the Blackfoot Indians, which ran down the center of the chute and was composed of buffalo chips supported by three small sticks. This line was conspicuous against the snow and served to orient the buffalo who followed it blindly (1893:231-332). The Blackfoot apparently also placed two rock piles in a short horizontal row in the center and near the narrow end of the drive lane. Two of the bravest hunters were stationed behind these rock piles (Schaeffer n.d.). Mandelbaum (1979:54) mentioned a center drive line of brush bundles in his description of the pounds used by the Plains Cree.

The shape of the drive lanes also varied from the V-shape usually reported. Jefferson (1929:92), Skinner (1914b:524) and Mandelbaum (1979:54) described drive lines used by the Cree which essentially ran parallel to the trap and turned sharply just before the entrance.

In summary, the Plains Indians varied the physical components of the buffalo pound to suit the terrain, materials available and number of people involved in the hunt. The basic components of the buffalo pound, however, were a drive lane bounded by rows of objects intended to keep the buffalo travelling toward the corral, and a corral or pen large enough to enclose the herd being hunted.

THE IMPOUNDING PROCEDURE

Rituals and Initiation of Drive Procedure

As discussed earlier in this report, communal bison drives were commonly preceded by religious rituals intended to bring success in the hunt. When the Assiniboine and Plains Cree, and possibly other tribes, made buffalo pounds, a man called variously the Poundmaker, "Chief of the Park", "Master of the Park", or "Master of the Pound" was responsible for the rituals and the supervision of the construction and operation of the pound. Among the Blackfoot, however, the supervisory functions seem to have been performed by the band or tribal chief while rituals were performed by owners of beaver bundles or buffalo rocks.

The duties of the Cree and Assiniboine Poundmakers have been described by Arthur (1975:81-82), Denig (1930:443, 532-533), De Smet (1972:150-151), Franklin (1969:113), Larpenteur (1898:410), Mandelbaum (1979:54-55), McDonnell (1889:280), McDougall (1896:274-275), Skinner (1914b:526-527), and Weekes (1948:14-16). Offerings of scarlet cloth, buffalo skulls, tobacco, kettles and other objects were hung from the top or placed at the bottom of a tall pole or tree in the center of the pound, and sometimes such offerings were placed at the entrance of the pound by the Poundmaker. Denig (1930:532) reported that the Assiniboine attached sacrifices to the wind at the top of the post, while sacrifices to the Buffalo Spirits were placed at the bottom of the post. De Smet (1972:150) stated that the Master consulted with the guiding spirits of the bison. According to Larpenteur (1898:410), Hector (Palliser 1863:71), Skinner (1914b:526), and Weekes (1948:14), the sacrifices were made to "Manitou", the "Great Spirit", the "Powers Above".

The rites of the Poundmaker varied with each individual. According to Arthur (1975:81), McDougall (1896:274) and Weekes (1948:15), the rites were performed over several nights and culminated in the consecration of the pound. Ceremonies took place both in the lodge of the Poundmaker and within the confines of the corral. Some poundmakers were reported to have remained standing at the base of the pole (Skinner 1914b:525) or been suspended from the top of the pole (Franklin 1969:119; Weekes 1948:16) as the buffalo were driven into the corral. In some cases, the Master of the Pound gave a speech of thanks and offered a pipe to the buffalo in the pen or to "Powers Above" before the slaughter of the buffalo in the pound took place (McDonnell 1889:280; Skinner 1914b:525; Weekes 1948:16). According to Arthur (1975:85) and Fidler (December 27, 1792), the man in charge of supervising the hunt was responsible for killing the first buffalo, which he did with a rifle.

The Blackfoot tribes do not seem to have had this type of "Poundmaker" tradition. Both the ritualists and the band or tribal Chief seem to have been involved in the orchestration of the hunt (Schaeffer n.d.). The communal hunt ritualists of the Blackfoot customarily remained indoors, apart from the actual events of the hunt, while the band or tribal Chief may have overseen its organization (Fidler: December 27, 1792; Schaeffer n.d.). Peter Fidler, describing a Piegan buffalo pound in southern Alberta, used the term "Pound Master" and noted that the role was played by the tribal Chief (December 27, 1792). Fidler did not, however, mention that any rituals were performed by the Pound Master, other than killing the first buffalo. According to historic and ethnographic accounts, the Blackfoot tribes apparently did not erect a center pole in the pound either. Barrett (1921a:82-84) noted that it was customary for the Blackfoot medicine man to remain in his lodge during the drive.

Locating and Manipulating the Herd

Before a drive took place, young men, known as "scouts", "runners", or "buffalo drivers", were sent out by the Chief or medicine man in search of buffalo. According to Claude Schaeffer (1978:245-246), the Blackfoot runners were unmarried men who underwent extensive training to build their stamina and speed in running. The importance of these men within Blackfoot culture is indicated by the legends about renowned runners that have been passed down through generations. One of the legendary runners was Red Antelope, a man whose power as a runner was derived from the spirits of the antelope and falcon. He apparently wore a special outfit made of antelope hide and an antelope headdress and carried rattles made of antelope hooves (ibid.).

The role of the runner was to locate a herd of buffalo and manipulate it into moving toward the drive lane of the buffalo pound. Once the buffalo were situated at the end of the drive lane, the runner led them down the lane and into the trap or, alternatively, stayed behind or to the side of the herd while a man particularly skillful in luring the buffalo led them into the pound.

The number of runners involved in driving the buffalo was usually reported to be three or four (Denig 1930:532; De Smet 1972:150; Coues 1897:518; Umfreville 1790:161), although "two, and sometimes even one," were sufficient (McDonnell 1889:279). Mandelbaum (1979:54) stated that "several" runners were used by the Plains Cree.

Runners apparently would travel as far as fifty miles from camp to find buffalo and could require days to drive the buffalo near enough to the camp to be impounded (Arthur 1975:82; Fidler:December 28, 1792; McDougall 1896:280; De Smet 1972:150). Denig reported that Assiniboine runners were sent out "every day or two" and would make "a circuit of about 20 miles in discovery of buffalo" (1930:532). According to De Smet (1972:150), Assiniboine runners were sent out daily and carried a "Wah-kon ball", which De Smet described as "a ball of hair covered with skin" (probably of buffalo hair), believed to be a buffalo calling charm (Mails 1972:192). The Wah-kon ball was entrusted to the runners by the Poundmaker. When buffalo were discovered, one of the runners ran back to camp and returned the ball to the Poundmaker. If the buffalo were relatively close to camp, the runners usually set out during the night or just before dawn (Mandelbaum 1979:54-55; McDonnell 1889:279; Weekes 1948:16). Cocking recorded that the Indians "set off in the evening and drive the cattle all night" (1908:111).

The process of manipulating the herd was described by Henry as "a tedious task which requires great patience, for the herd must be started by slow degrees" (Coues 1897:518). According to Mandelbaum (1979:54-55), several men could manipulate the herd by first surrounding it and then slapping robes on the ground. The loud slapping sound would startle the animals into moving a short distance away from the source of the sound and then settling down again. In this way, the hunters would gradually direct the herd in the desired direction. Hind (1971, Vol. 1:358) reported that the runners would hide themselves "in hollows and depressions" and direct the buffalo by showing themselves and waving robes suddenly if the buffalo tried to diverge from the desired course. John McDougall recorded a lengthy description of the subtleties involved in manipulating a herd of buffalo with fire. In summary, the buffalo driver, "Mr. Who-Brings-Them-In", would light a small fire up wind from the herd who would bunch together when they smelled the smoke. He would then keep them moving in the desired direction either with a whiff of smoke or by letting them catch a glimpse of him (1896:277-278). Weekes (1948:16) recorded a similar description based on information related to her by an Assiniboine Chief. Lowie (1963:16) noted that the practice of burning grass to force buffalo into a desired path was used well into the historic period. Blackfoot informants of Claude Schaeffer (1978:246-247; n.d.) stated that the runner would make his way around the entire herd once or twice to distinguish the leader from the rest of the herd, then attempt to start up the herd leader by getting as close as possible and shouting; this induced the herd leader to approach and follow after him. Once the leader of the herd was in motion, the others followed. In an interview with Hugh Dempsey, Blood Indian John Cotton stated, "They had a call --oh oh oh-- an owl-like call, which would make the buffalo bunch up" (1957a:1).

Among the Blackfoot Indians, men who were skilled in manipulating the buffalo were known as auaki (Schaeffer 1978:246) or Awah-kee, "buffalo chasers" (Dempsey 1957a:1). Among the Assiniboine and the Cree, they were known as "He-Who-Brings-Them-In" (McDougall 1896:276; Weekes 1948:16).

Luring and Driving the Buffalo Through the Drive Lane

Once the buffalo were in the vicinity of the drive lane, a man (occasionally several men) skilled in luring the buffalo down the drive lane, and sometimes all the way into the trap, was usually sent out to meet the buffalo. At this point, the people in the camp usually muzzled the dogs. Wissler described the muzzle used by the Blackfoot as a piece of tanned hide with a hole large enough to fit over the nose and well up on the jaws. The hide was pulled over the head and tied around the neck with a draw string, thus also serving as a hood (1910:37). The men, and sometimes women and children, went out to the drive lines and concealed themselves behind the "dead men".

Men who were skillful in "calling the buffalo" into the pound were few (Jefferson 1929:92; Brown 1919-1920:80). Luring the buffalo was done either on foot (Arthur 1975:81; Audubon 1960, Vol. 2:145; Grinnell 1893:229; Quaife 1921:284-285; Coues 1897:519; Lowie 1909:11; McDonnell 1889:280; Weekes 1948:16; Wissler 1910:37) or on horseback (Brown 1919-1920:80; Denig 1930:533; De Smet 1972:51; Ewers 1968:167; Grinnell 1893:232; Coues 1897:519; Jenness 1938:16; Wissler 1910:37). When on foot, the man who lured the buffalo was usually disguised as a buffalo and imitated the behavior of a buffalo. Alexander Henry witnessed a late eighteenth century Assiniboine buffalo pound operated by a very large encampment of Indians and described the decoys as dressed in buffalo skins with horns; their faces were covered and they imitated the buffalo almost exactly (Quaife 1921:284). When on horseback, the man might drape a buffalo robe over both himself and his horse (De Smet 1972:151) or over his body and lay down along the horse's back (Denig 1930:533).

The decoy would proceed slowly up the drive lane toward the buffalo, stop a few hundred yards from them, and bellow like a buffalo; many accounts describe this noise as an imitation of the cry of a calf. Out of curiosity, or perhaps empathy, the buffalo would eventually approach the decoy, who would then proceed down the drive lane toward the pound. "When he sees buffaloes approaching, he moves slowly toward the pound until they appear to follow him; he then sets off at full speed, imitating a buffalo as well as he can, with the herd after him" (Coues 1897:519). Grinnell (1893:230) described another method of decoying practiced by the Blackfoot, involving a man without a disguise who would wheel around in front of the herd, appearing and disappearing, thereby enticing the bison to move toward him. Kootenai Brown recalled one method whereby a mounted man would "swing himself from one side to another in his saddle. This attracted the attention of the buffalo and they would, out of curiosity, begin to crowd toward him" (1919-1920:80). The rider apparently accompanied these movements with a yell. When the buffalo began to crowd toward him he turned and headed toward the pound following a zigzag pattern. Skinner reported this technique as a practice known to the Plains Cree (1914b:525) and Plains Ojibway (1914a:498).

According to Mandelbaum, a horseman was able to guide the buffalo down the drive lane "on the principal that the herd leaders would always swing toward a rapidly approaching rider in an effort to head him off" (1979:55). If the buffalo were running too far to the right, therefore, the rider approached the leading buffalo from the left. In response, the buffalo would veer toward the rider and, in this manner, the horseman led the buffalo down the drive lane. This method was reported as a Metis technique by Grinnell (1893:232-233) and Jefferson (1929:92). According to Ewers (1968:167), Franklin (1969:112-113), Harmon (1911:286) and Umfreville (1790:161-162), several horsemen could drive the buffalo down the lane from behind. These writers did not mention the use of decoys; however, decoys were often followed by hunters driving the herd up the drive lane from behind.

Once the buffalo had entered the drive lane they were spurred on by the people behind the piles of buffalo chips, rocks, etc. These people stood and waved robes in the air to frighten the buffalo into staying between the drive lines. The buffalo thus moved on into the pound. The decoy or horseman leading the buffalo withdrew from the drive lane just prior to reaching the pound, or went into the pound ahead of the buffalo and escaped by either climbing out of the pen or slipping through a special escape aperture in the walls of the pound (Denig 1930:533; Quaife 1921:285; McDonnell 1889:280; Skinner 1914a:498; Skinner 1914b:525; Weekes 1948:16).

Slaughtering and Butchering the Buffalo

As the buffalo entered the pen, many of them would break their legs and necks as they fell over the small precipice, tumbled down the slope, tripped over stumps left inside the pound or stumbled over one another. Once all were in the pound they apparently milled about in a circular direction, which was frequently reported to have been "with the sun", from east to west (Harmon 1911:286; Coues 1897:519; McDougall 1896:281; Palliser 1863:11; Skinner 1914b:524).

Certain rituals were sometimes performed before the buffalo were slaughtered. Harmon (1911:286) reported that the "Indians on the east side of the Rocky Mountains" went into the Chief's tent to smoke prior to the slaughter. McDonnell (1889:280) reported that the Assiniboine sat around the pen and smoked before commencing the slaughter. Mandelbaum (1979:55) stated that the shaman climbed inside the pound and performed certain rites prior to the slaughter. According to Skinner, a Plains Cree Poundmaker would smoke a pipe beside the pen and blow smoke on each buffalo as it passed by him, "asking it not to hurt any of its slaughterers" (1914b:523-527).

Rites were also performed after the slaughter and prior to butchering. According to McDonnell, the Chief of the Park "distributed a little swansdown, coloured in vermillion upon the buffalo heads" (1889:280). Mandelbaum (1979:55) stated that the Plains Cree Poundmakers climbed into the pound and sang their "power songs". Then small boys undressed, climbed into the pen and threw buffalo intestines over the branches of the central tree, imitating the call of a crow as they did so. Small girls delivered wood to the Poundmaker's tipi at the same time. Each girl received a piece of fat and each boy a tongue, from the newly slain buffalo. Butchering was then commenced. Skinner noted that, among the Plains Cree (1914b:527) and Plains Ojibway (1914a:498), if the buffalo were impounded late in the afternoon they were not killed until the next day. Several accounts, however, do not mention any hesitation or pause by the Indians prior to the slaughter. De Smet noted that several of the Buffalo "fall under the blows before gaining the pen..." (1972:152).

The Indians usually used bows and arrows, lances, hatchets and knives to slaughter the buffalo. Guns are reported in some accounts, but these were not generally used. In fact, McDonnell (1889:280) stated that firearms were prohibited during the slaughter. Skinner (1914b:526) noted that the use of rifles would have been too dangerous. Alexander Henry (Coues 1897:520) remarked that the arrows bore a special mark identifying the owner; this enabled the men to identify and claim the buffalo they had killed. Mandelbaum (1979:83) observed that the sound of the guns would have added to the alarm of the buffalo and could have excited them into breaking down the corral.

The slaughter of the buffalo could be quite a shocking scene to observers. Peter Fidler recorded the following account of the buffalo slaughter in a Piegan pound:

> The young men kill the rest with arrows, Bayonets tyed upon the end of a Pole, etc. The Hatchet is frequently used and it is shocking to see the poor animals thus pent up without any way of escaping, butchered in this shocking manner, some with a stroke of an axe will open nearly the whole side of a buffalo & the poor animal runs sometimes a considerable while all thro' the Pound with all its internals dragging on the ground & trod out by the others, before they dye. (December 27, 1792)

This work was usually performed by men and boys (Ewers 1968:167; Harmon 1911:287; Coues 1897:520), although women and children apparently took part in the slaughter on some occasions (Hind 1971, Vol. 1:358; ibid. Vol. 2:142; Palliser 1863:11). According to James Hector (Palliser 1863:71), some Indians risked their lives by jumping into the corral to retrieve arrows before the entire herd was slaughtered.

Butchering was usually performed by most of the women, men and children and was as impressive as the slaughter of the buffalo. De Smet witnessed the following scene at an Assiniboine pound:

> Men, women, and children, in an excitement of joy, take part in the general butchery, and the flaying and cutting up of the animals. To look at them without disgust in this operation, one must have been a little habituated to their customs and manners. While men cut and slash the flesh, the women, and children in particular, devour the meat still warm with life - the livers, kidneys, brains, & c., seem irresistible attractions: they smear their faces, hair, arms, and legs with the blood of the bisons; confused cries, clamorous shouts, and here and there quarrels, fill up the scene. It is a picturesque and savage scene, a very pandemonium - a sight very difficult to depict by words or to recount in minute details. (1972:153)

Henry Youle Hind gave a similar account of Cree Indians near the Sand Hills of what is now Saskatchewan (1971, Vol. 1:142-143). According to M'Gillivray (1929:44), some of the buffalo were butchered before they were dead. De Smet (1972:153) noted that the Indians devoured certain parts of the buffalo raw while butchering. The liver, kidneys, brains and slices of brisket were greatly enjoyed in the raw state. Butchering the kill could take several hours to a few days (Denig 1930:533) depending on the number of buffalo killed, which could range from a few dozen to several hundred. De Smet (1972:152) witnessed six hundred impounded, and kills of two or three hundred were common (Denig 1930:533; Hind 1971, Vol. 1:357). The missionary Robert Rundle (Dempsey 1977:49) reported the incredible figure of 2450 buffalo killed.

The Indians killed all of the buffalo in the pound, although often only the cows were butchered; the meat of the bulls was considered tough and unpalatable except during the early summer (Ewers 1958:76). The carcasses of the bulls were often left for the enjoyment of the Indians' dogs, for whom openings were made in the corral walls (Coues 1897:518; Lowie 1909a:11). Sometimes too many carcasses were left in the pound, and the Indians would move away from the used pound and build a new one (Hind 1971, Vol. 1:357; Mandelbaum 1974:55).

On some occasions, more than one herd was driven into the pound in the course of a day. Peter Fidler witnessed such a day among the Piegan (December 28, 1792) and remarked that women busy butchering the first herd were forced to run for their lives; he was told that sometimes some women were trampled to death. Thus, the task of butchering could be a dangerous one, as well as an arduous one. According to Skinner (1914a:498) some pounds had special doors through which a buffalo could be removed for butchering. According to superstition, all of the buffalo impounded had to be killed even if they were not to be used. If one buffalo escaped, it was believed that it would inform other buffalo of the Indians' trap and would therefore render it useless in the future, or it could lead other buffalo off through the drive lines and away from the trap (Fidler: December 18, 1792; McDougall 1896:282).

Distributing the Kill

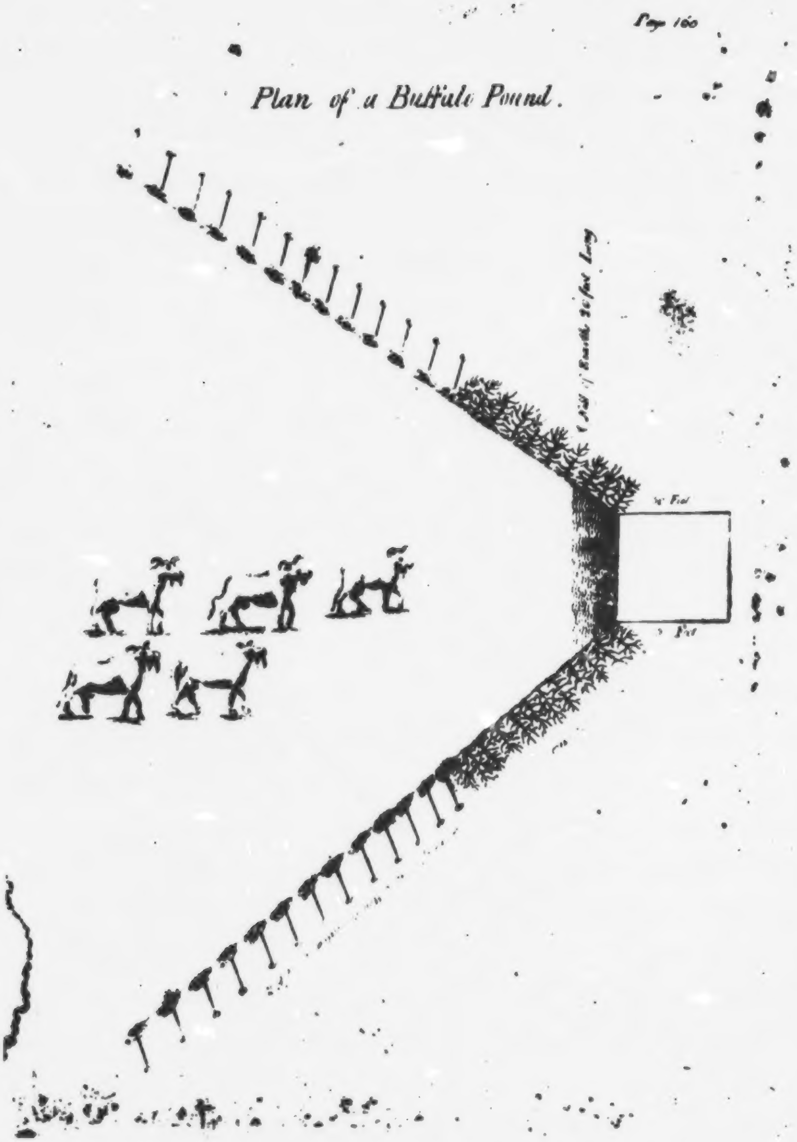
There are various reports of how the kill in a buffalo pound was divided among the people of the camp. In general, every family was ensured a share of the hunt. With reference to the Plains Cree, Mandelbaum (1979:55) noted that all those encamped in the vicinity of the pound were entitled to share in its yield, regardless of whether they had participated in building the pound or whether they belonged to the band that had undertaken the hunt. Some accounts state that the kill was distributed among the families in proportion to the number of members in each family (De Smet 1972:152; Ewers 1968:167; Coues 1897:520; Weekes 1948:17). In some cases, however, the ritualist who conducted the rites of the hunt received a special portion consisting of choice parts of the buffalo, such as kidneys, liver, brisket tripe and, frequently, the tongues of all the buffalo slaughtered (Denig 1930:534; Ewers 1968:167; Harmon 1911:287; Quaife 1921:286; Coues 1897:520; McDougall 1896:281). According to Mandelbaum, the fattest carcasses were given to "the men who had worked on the pound" (1979:55). Skinner (1914b:525) reported that the Plains Cree gave the tongues to those who built the pound and the man who led the buffalo into the pound. According to one Assiniboine informant, the buffalo drivers were entitled to the best animals (Lowie 1909a:11). According to Blood Indian John Cotton (Dempsey 1957a:2), the meat of an animal was divided among six people, who butchered together, and cut each buffalo into the same six portions: the heart and shoulder; loin and part of the innards; the flank and ribs; a hind quarter, paunch and fat; a hind quarter and entrails; and the remainder. Each time they butchered a buffalo, a different portion was taken by each person. At a Northern Blackfoot pound described to Ewers (1968:167), each man who had killed a buffalo in the pound was given its hide and ribs. According to Henry (Quaife 1921:186), the lumps on the shoulders of the buffalo, the hearts and the tongues were set apart for feasts by the Assiniboine. One account of the Assiniboine (McDonnell 1889:280) states that the Poundmaker refrained from eating any meat killed in the pound. Harmon (1911:287) remarked that if an Indian was dissatisfied with his share he would not complain. He had the option, however, of leaving the camp and joining a different party of Indians.

Post-Hunt Activities

In general, post-hunt activities consisted of feasting and of processing the kill. The feasting was enjoyed more by the men than by the women of the camp because the women were responsible for tanning the hides and preserving the meat after the hunt. Throughout the camp, which was generally located near the pound in the valley, at the base of the hill, or in the woods where the pound was located (Denig 1930:532; De Smet 1972:148; Fidler: December 28, 1792), meat could be seen drying in the sun on racks (De Smet 1972:152; Hind 1971, Vol. 1:357). Methods of processing buffalo meat and hides will be discussed in later sections of this report (see "Methods of Butchering and Meat Processing" and "Uses of the Buffalo in Material Culture").

HISTORIC AND ETHNOGRAPHIC ACCOUNTS OF BUFFALO POUNDS

One of the earliest accounts of a bison pound was recorded in 1790 by the fur trader Edward Umfreville in his book The Present State of Hudson's Bay. Umfreville's description of a buffalo pound, which does not apparently apply to any particular tribe of Indians, is especially interesting because, according to Kehoe (1973:173), it includes the first published illustration of a pound (Figure 2).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Plan of a Buffalo Pound.
Feet
Feet

Figure 2: Diagram of a buffalo pound by Edward Umfreville (1790:160).

The Buffalo Pound

The indians have various ways of killing the Buffalo; one of which is by cautiously approaching them when feeding. The hunter upon this occasion lies on his belly, and will sometimes fire his gun forty or fifty times without raising the herd. They also pursue them on horseback, and shoot them with arrows and guns. But the means by which the greatest numbers are taken, is by making a pound, which is constructed in the following manner:

> "They are either of a circular or square form, and differ according to the manner of the nation by whom they are made. The square ones are composed of trees laid on one another, to the height of about five feet and about fifty on each side of the square. On that side at which the animals are intended to enter, a quantity of earth is laid, to the height of the construction, so as to form a hill of an easy ascent of about twenty feet. This done, a number of branches of trees are placed, from each side of the front, in a strait line from the raised hills, for about one hundred feet in length, continually increasing in width, so that though the inward ends of these lines of branches are no more than fifty feet asunder, the exterior end will exceed two hundred feet. After this, a number of poles, nearly fifteen feet long each, are placed at about twelve feet distance from each other, with a piece of Buffalo dung on the top and in a strait line from the boughs abovementioned. At the foot of each pole a man lies concealed in a Buffalo skin, to keep the animals in a strait direction to the pound. These poles are placed alike on each side, always increasing in breadth from one side to the other, and decreasing in the same proportion as the animals approach the pound. Every preparation being now made, three or four men set off on foot to find a herd of Cows; for the Bulls they think not worth their trouble. These they drive easily along, till they arrive within the vicinity of the pound, when one man is dispatched to give notice to the other Indians, who immediately assemble on horseback on each side of the herd, keeping a proper distance, for fear of frightening the animals. By this means they are conducted within the exterior line of poles. It frequently happens that they will endeavour to go out; to prevent which, the men who are placed at the foot of each pole, shake their skins, which drives the herd to the opposite side, where the others do the same: so that at last they arrive at the pound, and fall in headlong one upon another, some breaking their necks, backs, &c. And now, the confusion becomes so great within, that though the height of the building shall not exceed five feet, none will make their escape. To elucidate this description of the Buffalo Pound, I have roughly sketched the annexed diagram. (1790:160-162)

A similar general description of the buffalo pounds of the Plains Indians was recorded during the early nineteenth century by the trader Daniel Harmon.

> The Natives look out for a small grove of trees, surrounded by a plain. In this grove of trees they make a yard, by falling small trees, and interweaving them with brush; and they leave an opening into it about twenty feet broad. They select, for this purpose, a rising piece of ground, that the yard may not be seen at a distance. From each side of this opening, they fix two ranges of stakes, at about an angle of ninety degrees from each other, extending about two miles into the plains. These stakes rise about four feet above the ground, and are about forty feet apart. On the top of each stake, they put buffaloe dung, or tie a wisp of hay. After this preparation, when a herd of buffaloes is seen at no great distance off, thirty or forty or more young men mount their racers, which are well trained to this business, and surround them; and little difficulty is found in bringing them within the range of the stakes. Indians are stationed by the side of some of these stakes, to keep them in motion, so that the buffaloes suppose them all to be human beings. The horsemen press forward by the sides of the herd and behind them, until, at length, with their tongues lolling from their mouths, they are brought to the entrance of the yard; and through it they rush without perceiving their danger, until they are shut in, to the number, oftentimes, of two or three hundred. When they find themselves enclosed, the Indians say, and I have frequently seen myself, that they begin to walk around the outside of the yard, in the direction of the apparent revolution of the sun, from east to west. Before any of them are killed, the Indians go into the tent of the chief to smoke, which they denominate making the buffaloe smoke. They then go out to the yard, and kill the buffaloes with bows and arrows; and there are Indians who will send an arrow, entirely through one buffaloe, and kill, at the same time, a second. When the buffaloes are all killed and cut up, the tongues of all of them are taken to the tent of the chief; and with a part of them he makes a feast, and the remainder he allows his neighbours to keep. The meat and skins are then distributed among the people of the whole camp; and whether equally or not, no one will complain. Should any be displeased with their share, they will decamp, and go and join another party. (1911:285-287)

Blackfoot Buffalo Pounds

Among the Blackfoot tribes, the Northern Blackfoot were known to have employed buffalo pounds similar to the pounds described above, i.e., located on level prairie or at the base of a slope. The Piegan and Blood tribes, however, lived in more broken country closer to the Rocky Mountains and tended to situate their pounds at the base of cliffs. They were also known to use buffalo jumps when a cliff high enough to kill the animals by their fall was available. George Bird Grinnell (1893) and Clark Wissler (1910) provided valuable ethnographic information on the buffalo drive methods of the Blackfoot tribes. Grinnell commented on the pis´kun of the Blackfoot as follows:

Certain ingenious methods were therefore devised to insure the taking of game in large numbers at one time. This was especially the case with the buffalo, which were the food and raiment of the people. One of these contrivances was called Pis´kun, deep-kettle; or, since the termination of the word seems to indicate the last syllable of the word ah'-pun, blood, it is more likely deep-blood-kettle. This was a large corral, or enclosure built out from the foot of a perpendicular cliff or bluff, and formed of natural banks, rocks, and logs or brush, -- anything in fact to make a close, high barrier. In some places the enclosure might be only a fence of brush, but even here the buffalo did not break it down, for they did not push against it, but ran round and round within, looking for a clear space through which they might pass. From the top of the bluff, directly over the pis´kun, two long lines of rock piles and brush extended far out on the prairie, ever diverging from each other like the arms of the letter V, the opening over the pis´kun being at the angle.

In the evening of the day preceding a drive of buffalo into the pis´kun a medicine man, usually one who was the possessor of a buffalo rock, In-is-kim, unrolled his pipe, and prayed to the Sun for success. Next morning the man who was to call the buffalo arose very early, and told his wives that they must not leave the lodge, nor even look out, until he returned; that they should keep burning sweet grass, and should pray to the Sun for his success and safety. Without eating or drinking, he then went up on the prairie, and the people followed him and concealed themselves behind the rocks and bushes which formed the V, or chute. The medicine man put on a head-dress made of the head of a buffalo, and a robe, and then started out to approach the animals. When he had come near to the herd, he moved about until he had attracted the attention of some of the buffalo, and when they began to look at him, he walked slowly away toward the entrance of the chute. Usually the buffalo followed, and, as they did so, he gradually increased his pace. The buffalo followed more rapidly, and the man continually went a little faster. Finally, when the buffalo were fairly within the chute, the people began to rise up from behind the rock piles which the herd had passed, and to shout and wave their robes. This frightened the hindermost buffalo, which pushed forward on the others, and before long the whole herd was running at headlong speed toward the precipice, the rock piles directing them to the point over the enclosure. When they reached it, most of the animals were pushed over, and usually even the last of the band plunged blindly down into the pis´kun. Many were killed outright by the fall; others had broken legs or broken backs, while some perhaps were uninjured. The barricade, however, prevented them from escaping, and all were soon killed by the arrows of the Indians.

It is said that there was another way to get the buffalo into this chute. A man who was very skilful in arousing the buffalo's curiosity, might go out without disguise, and by wheeling round and round in front of the herd, appearing and disappearing, would induce them to move toward him, when it was easy to entice them into the chute. Once there, the people began to rise up behind them shouting and waving their robes, and the now terror-stricken animals rushed ahead, and were driven over the cliff into the pis´kun, where all were quickly killed and divided among the people, the chiefs and the leading warrior getting the best and fattest animals.

The pis´kun was in use up to within thirty-five or forty years, and many men are still living who have seen the buffalo driven over the cliff. Such men even now speak with enthusiasm of the plenty that successful drives brought to the camp.

The pis´kuns of the Sik-si-kau, or Blackfoot tribe, differed in some particulars from those constructed by the Bloods and the Piegans, who live further to the south, nearer to the mountains, and so in a country which is rougher and more broken. The Sik-si-kau built their pis´kuns like the Crees, on level ground and usually near timber. A large pen or corral was made of heavy logs about eight feet high. On the side where the wings of the chute come together, a bridge, or causeway, was built, sloping gently up from the prairie to the walls of the corral, which at this point were cut away to the height of the bridge above the ground, - here about four feet, - so that the animals running up the causeway could jump down into the corral. The causeway was fenced in on either side by logs, so that the buffalo could not run off it. After they had been lured within the wings of the chute, they were driven toward the corral as already described. When they reached the end of the >, they ran up the bridge, and jumped down into the pen. When it was full, or all had entered, Indians, who had lain hidden near by, ran upon the bridge, and placed poles, prepared beforehand, across the opening through which the animals had entered, and over these poles hung robes, so as entirely to close the opening. The buffalo will not dash themselves against a barrier which is entirely closed, even though it be very frail; but if they can see through it to the outside, they will rush against it, and their great weight and strength make it easy for them to break down any but a heavy wall. Mr. Hugh Monroe tells me that he has seen a pis´kun built of willow brush; and the Cheyennes have stated to me that their buffalo corrals were often built of brush. Sometimes, if the walls of the pis´kun were not high, the buffalo tried to jump or climb over them, and, in doing this, might break them down, and some of them escape. As soon, however, as the animals were in the corral, the people - women and children included - ran up and showed themselves all about the walls, and by their cries kept the buffalo from pressing against the walls. The animals ran round and round within, and the men standing on the walls shot them down as they passed. The butchering was done in the pis´kun, and after this was over, the place was cleaned out, the heads, feet, and least perishable offal being removed. Wolves, foxes, badgers, and other small carnivorous animals visited the pis´kun, and soon made away with the entrails.

In winter, when the snow was on the ground, and the buffalo were to be led to the pis´kun, the following method was adopted to keep the herd travelling in the desired direction after they had got

> between the wings of the chute. A line of buffalo chips, each one supported on three small sticks, so that it stood a few inches above the snow, was carried from the mouth of the pis´kun straight out toward the prairie. The chips were about thirty feet apart, and ran midway between the wings of the chute. This line was, of course, conspicuous against the white snow, and when the buffalo were running down the chute, they always followed it, never turning to the right nor to the left. In the latter days of the pis´kun, the man who led the buffalo was often mounted on a white horse.
>
> . . . The pis´kuns, as a rule were built under low-cut bluffs, and sometimes the buffalo were driven in by moonlight. (1893:228-232)

Grinnell's comment that the buffalo drives were sometimes conducted at night is unusual among accounts of buffalo pounds and jumps (cf. Palliser 1863:70).

Clark Wissler (1910) also attributed the use of the Cree and Assiniboine type of pound (i.e., a pound located at the base of a slope or on level ground) to the Northern Blackfoot, and the use of pounds built at the base of a natural precipice to the Blood and Piegan Indians. Wissler obtained some very useful information on the drives of the Piegan and Blood Indians from informants whose parents would have witnessed traditional drives among the Blackfoot tribes.

> . . . we gathered information from reliable old men as to the manner in which such drives were used. Of course, none of these had seen a drive, but had heard the accounts of their elders time and again. According to these, the herd was run down between the lines of rock piles and forced over the bluff. An enclosure was built below into which the buffalo would fall. Stakes about the size of lodge poles were set in the ground at an angle so that they crossed each other in lattice fashion. This fence was strengthened by binding the crossings of the poles with strips of rawhide. Into this, brush was woven until all the openings were closed. The fence was inclined inward so as to give it greater resistance and also to decrease the probability of the buffalo jumping it. Our informants insisted that no screens of brush were added to the rock lines forming the chute to the enclosure or pound, and that the rock piles were now about as large as when in use. This is contrary to the information furnished Grinnell.
>
> A drive was made by working a bunch of buffalo between the outward ends of the lines. This was done by a few young men on foot, working quietly around a bunch grazing within a few miles of the drive and causing them to drift toward the lines. This was by no means easy and the failures were many. The camp was usually on the flat in the vicinity of the drive and a watcher was posted to give notice when a

bunch was approaching the chute. When the conditions seemed favorable, he ordered all the young, or able-bodied men, out to the lines where they took their stations behind the rock piles, concealing themselves under blankets or newly cut branches. Then, if the buffalo drifted into the wide entrance to the lines, the outlying men began to stampede them and as they moved forward, the men concealed on their flanks arose shouting, waving blankets or brush, so as to keep them headed down the chute and to increase their fright. When near the brink, the leading buffalo attempted to stop and turn aside. Here, the number of men was greatest and the danger of being run down, considerable; but the pressure of the frightened buffalo in the rear, and the demonstrations of the men near the brink, were usually effective in forcing over the leaders whence the whole bunch followed blindly. The Indians claim that once the buffalo were running in the chute, success was practically assured. The fall maimed some of the buffalo and the others were shot as they milled around in the enclosure. When all were down, the struggling ones were dispatched by striking their foreheads with stone mauls.

In some cases, a swift runner covered with a buffalo robe, hair side out, led the animals down the chute. According to Grinnell, such an individual sometimes unaided, enticed the buffalo into the lines. After horses came into use, the buffalo were sometimes worked into the lines by a few riders, then forced down into the chute by many horsemen on either flank, the lines near the brink being guarded by men on foot as before. The use of the horse, however, and later the gun, caused the drives to fall into disuse, it being much easier to round up a bunch in the open and, riding round and round, shoot them down in rapid succesesion.

According to some informants, many drives were provided with a middle line of rock piles, much shorter than the others. In such cases two coulees, or depressions led to the brink over the enclosure, the middle line passing along the crest between them. Buffalo running down the main lines might take either of these coulees. The men on this secondary line were directed as to which side to take by a watch posted on a near by knoll. In the diagram, there appears a secondary line outside of the chute, but this is, in reality, a diversion of the main line to cover the mouth of a break in the bluff.

When the driving of buffalo was attempted, many dogs were muzzled to prevent barking. In a piece of tanned hide, a hole was cut large enough to pass over the nose and well up on the jaws. The edges of the piece were drawn back over the head and fastened around the neck with a draw string. By this contrivance, the dog was also hooded. In addition, they were either tied up, yoked to an anchored travois, or weighted with heavy pieces of wood to prevent their finding their way to the pound.

> The Piegan positively assert that they never used the Assiniboine, or Cree type, of pound . . . the essential features of the buffalo drive among the Piegan and Blood were an enclosure beneath the brow of a bluff, and regular lines of rock piles enclosing a V-shaped space. (1910:36-38)

The earliest eye-witness account of a buffalo pound possibly used by the Northern Blackfoot was recorded by Mathew Cocking in the winter of 1772. Cocking camped at an "Archithinue" (either Blackfoot or Gros Ventre - the latter is most likely) pound west of the Eagle Hills in what is now Saskatchewan. Apparently, the Indians with whom Cocking was travelling were not Archithinue, but Cree and/or Assiniboine. Arriving at the pound on November 22, 1772, Cocking's travelling companions attempted to repair the Archithinue pound the following day, the Archithinue not having arrived yet.

> Every person repairing the Beast pound. It is a circle fenced round with trees laid one upon another, at the foot of an Hill about 7 feet high & an hundred yards in Circumference: the entrance on the Hill-side where the Animal can easily go over; but when in, cannot return: From this entrance small sticks are laid on each side like a fence, in form of an angle extending from the pound; beyond these to about 1 1/2 mile distant. Buffalo dung, or old roots are laid in Heapes, in the same direction as the fence: These are to frighten the Beasts from deviating from either side. This pound was made by our Archithinue friends last spring, who had great success, many Skulls & Bones lying in the pound. Several Buffalo seen near at hand, & the Young men endeavored to drive them beyond the pound but without success. (1908:109)

Between November 23 and December 1, Cocking's travelling companions "can make nothing of the pound" (1908:110). When the experts, the Archithinue, arrived on the first of December, Cocking was hopeful that success would finally be gained in the buffalo drive. The Natives repaired the pound and attempted to drive the buffalo. However, by December 6, "the Strangers say the season is past. A hungry prospect . . ." (1908:111). What the Archithinue meant by "season" is unclear. Cocking spent the entire winter without witnessing a truly successful buffalo drive. As late as April 3, 1773, in a camp of Cree and Assiniboine in another location, he remarked, "Natives pounded several Buffalo: they bring droves to the pound, but only few enter into it" (1908:116).

Alexander Henry (the Younger) witnessed impounding attempts by the Northern Blackfoot at a pound on the Vermilion River in 1809. Unfortunately, the attempts were unsuccessful due to adverse wind conditions.

> Dec. 20th. The Blackfeet have repeatedly sent for my neighbor and me to come to their camp and see buffalo driven into the pound. Painted Feather's brother being here for that purpose, we determined to accompany him, and as we were told there was a vast quantity of meat already staged for us, we took each a dozen men with horse sleds to bring it home. We set off at sunrise on the sleds, and, after a pleasant ride, came at noon to the Blackfoot tents at the elbow of Vermillion river. We were received by Painted Feather and some other principal men, who informed us the young men were all out, but that the wind was wrong, and they doubted that the buffalo would run as long as it held from that direction. They had prepared a large tent for Mr. Hamel and myself, and dispersed our men in others. They were very civil and kind to us, but their object was to get what they could from us. Like all Indians, when once they find there is nothing more to be had for the asking or otherwise, they become careless about us. In this camp we found three tents of Assiniboines, who had lately committed murder among their own people and taken refuge among the Blackfeet. We were invited into several tents, to eat, and our men were in their glory, as the Indians were officious in giving them plenty to eat and offering their wives on easy terms. 21st. Another party of young men endeavored to impound the buffalo, but the weather continued unfavorable; the fog did not clear away until toward evening, and the wind was still contrary. A principal chief of a neighboring pound came to invite us to his camp, where he said the buffalo were numerous; but old Painted Feather would not consent to our going. The day passed, no buffalo came, and we had only the satisfaction of viewing the mangled carcasses strewn about in the pound. The bulls were mostly entire, none but good cows having been cut up. The stench from this inclosure was great, even at this season, for the weather was mild. 22d. We were called early to see the buffalo, and instantly were on the lookout hill, whence we saw plenty indeed; but the wind was still unfavorable, and every herd that was brought near the ranks struck off in a wrong direction. We could plainly discern the young men driving whole herds from different directions, until these came within scent of the smoke when they dispersed. We remained until noon, when I lost all patience, and came away much disappointed. The Indians desired us to remain, as they were certain of getting at least one herd in before dark; but I would not listen to them. After a pleasant ride, we reached home at four o'clock, having run several races on the road. 23d. Some Blackfeet arrived from the camp where I had been bringing a quantity of fat meat. They informed me we had scarcely left when a large herd was brought in; they had called to us, but we did not hear as we were too busy racing. (Coues 1897:576-577)

John Ewers recorded an account of a Northern Blackfoot buffalo drive which he interpreted as the last bison drive of the Blackfoot Indians. The account was given by Old Weasel Tail, a Blood Indian living on the Blackfoot Reservation in Montana, in 1947. Old Weasel Tail was born around 1859 and was approximately fifteen years old at the time of the "last bison drive".

> Twice I have seen buffalo corralled. The first time I was a small boy about four years old. We were camped near the North Piegan in the Porcupine Hills west of the present town of Macleod (Alberta). I don't remember anything about it except that I saw the dead buffalo in the corral and that I fell over one of the pointed stakes projecting into the corral and cut a bad gash in my forehead just over my right eye. You can still see the scar.
>
> The second time I was about 15 years old. I killed one of the buffalo in that corral with a gun. I remember it well.
>
> I was then among the North Blackfoot near present Gleichen (Alberta). It was in winter. We didn't drive the buffalo over a cliff. We built a corral near the edge of timber toward the bottom of a downhill slope. We made the corral of cottonwood posts set upright in the ground to a height of about 7 feet, and connected by crosspoles of cottonwood or birch tied to the posts with rawhide ropes. All around the corral stakes of cottonwood or birch were laid over the lowest crosspoles. Their butt ends were firmly braced in the ground outside the corral. Their other ends projected about 3 feet or more inside the corral at an angle so that the ends were about the height of a buffalo's body. These ends were sharpened to points so that if the buffalo tried to break through the corral, after they had been driven into it, they would be impaled on the stakes. From the open side of the corral the fence of poles extended in two wings outward and up the hill. These lines were further extended by piles of cut willows in the shape of little lodges tied together at the tops. These piles were about half as high as a man and were spaced at intervals of several feet. On the hill just above the opening of the corral a number of poles were placed on the ground crosswise of the slope and parallel to each other. The buffalo had to cross these poles to enter the corral. These poles were covered with manure and water which froze and became slippery so that once the buffalo were in the corral they couldn't escape by climbing back up the hill.
>
> Before the drive began a beaver bundle owner handled the sacred buffalo stones in his bundle and prayed. He sang a song, "Give me one head of buffalo or more. Help me to fall the buffalo."
>
> Then the men of the camp rode out on horseback, got around behind a herd of buffalo and drove it toward the corral. A man stood at the top of the hill and gave a signal to the women and children,

> who were hiding behind the willow piles, when the buffalo were coming. As the buffalo passed them the women and children ran out from their hiding places.
>
> Once inside the corral, the buffalo were killed by men and boys with guns. I believe we killed 33 buffalo that time. Then the camp chief went into the corral to take charge of the butchering and division of the meat. While butchering in the corral the people ate buffalo liver, kidneys, and slices of brisket raw. Two young men took kidneys, liver, brisket, tripe, and manifold to the beaver bundle owner who had prayed for the success of the fall and who had remained in his lodge. Each man who had killed a buffalo in the corral was given its hide and ribs. Then the rest was cut into quarters and the chief divided the quarters among the families in the camp. Each family got the same share, whether the family was large or small. After the buffalo were divided the corral was broken up for fire wood.
>
> I have never heard of a buffalo corral made by any of the Blackfoot tribes since the time of this fall in which I participated. Of course we had plenty of guns then. There were already less buffalo than there had been. We could hunt them on horseback. (1968:166-167)

According to Ewers' calculations, this drive took place in approximately 1874.

Peter Fidler's "Journal of a Journey Over Land from Buckingham House to the Rocky Mountains in 1792 & 3" is a valuable source of eye-witness descriptions of buffalo drives among the Piegan Indians. Historic information on the habits of these Indians is rare because they were located quite far south of the parkland region, where the nearest traders and missionaries were situated. Peter Fidler, however, spent a winter with the Piegan Indians in the foothills of southern Alberta during 1792-1793. As a surveyor employed by the Hudson's Bay Company, he kept a detailed journal of his experiences during that time. Fidler referred to both buffalo pounds and buffalo jumps as pounds, and many of those he witnessed seem to have been jumps. However, on December 27, 1792, he arrived at a camp where a corral had definitely been constructed. At this time Fidler was camped on Sheppart Creek, according to MacGregor (1966:74), where he stayed until December 30. During his stay, he witnessed a number of successful buffalo drives.

> Found 11 Tents here and a Buffalo Pound. These 11 Tents had been here 5 Days & had made a Pound the 3 sides of which was made of Wood, being a strong fence about 5 foot high, in a Creek, one side of which was steep where the Buffalo came on. They had got a few into it

before we arrived. Great numbers of Buffalo near this place. Just after we arrived they brought a small heard of about 50 into it & killed every one. The Pound within is about 50 yards long by 20 wide. The Cliff that bore S76°W in the morning now bears N87°W. Several high ridges of hills betwixt us and the Mountain, pretty high running parallel with it, well covered with small pine &c. The Dead Men the Indians have at this Pound are made of 4 or 6 pieces of Buffalo Dung each being about knee high, and goes from the Pound in both sides about 1 mile or more. Several Indians lay flat on the ground at these hills, and as the Buffalo passes them they rise up & follows them running to keep the Buffalo upon a constant gallop, for should they not be driven on fast they would be aware of the danger & step from the right road into the Pound. When woods are near the Dead men are made of small bundles of branches, all having a start towards the Pound. Fresh breezes at SW, rather hazy, with a gentle Thaw. The Grass on fire N & NW of us.

28th Friday - at 8 AM they brought a heard of Buffalo into the Pound and an hour after they brought another into the Pound before all the first was killed. In the afternoon they brought several more head near the Pound but they all broke out amongst the Dead men, and not a single one they got into the Pound. Yesterday a great ceremony of smoaking, &c., was made in our Tent, the principal part of all the Old Men assembling, & several speeches war made, the purport of which was that they might have good luck in getting the Buffalo into the Pound & that they should run the way the Indian men wished. Our Chief is the Pound Master & when ever a heard comes into the Pound he must go & kill the first one, when after any body may kill that wishes. He generally shoots his one with a Gun. The young Men kill the rest with arrows, Bayonets tyed upon the end of a Pole, &c. The Hatchet is frequently used & it is shocking to see the poor animals thus pent up without any way of escaping, butchered in this shocking manner, some with a stroke of an axe will open nearly the whole side of a Buffalo & the poor animal runs some times a considerable while all thro' the Pound with all its internals dragging on the ground & trod out by the others, before they dye. So soon the Buffalo gets into the Pound, they constantly keep running all round, never being a moment still, until they are killed, when the women goes over the hedge & cuts up the Buffalo & takes the best parts. Sometimes the Buffalo a fresh herd will come into the Pound wile the Women are thus employed, which makes them to run headlong over the hedge to escape. Sometimes the Indians say that a few are killed by the Buffalo before they can get out of the Pound. The Young Men sleep out all night in general, when they bring the Buffalo to the Pound, & sometimes they will bring whole herds above 40 miles off & sleep 2 or 3 nights according as they can drive them in a direct manner or not towards the Pound. The Old Men & Boys attend the Dead Men, when the Buffalo is pretty nigh, one or 2 men althernately keep a const. look out to notice when the Young men have brought a herd near, when the holler is made & every old man & boy immediately runs to the Dead men & lays down flatt on the groun, before the Buffalo is very nigh, that they might see nothing stirring. The Tents are always pitched in a hollow that the buffalo cannot see them until they are just on the Point of

> getting into the Pound. Bringing the Buffalo to the Pound, particularly when at a great distance, is a very hard job for the Young Men, as they are obliged to run so very much to keep the Buffalo in the proper direction for the Pound. There is a deal of art in this driving them the way they wish, as it is such a wild Animal, & the sight of a single person will frighten a whole herd. they will smell a person at an amazing distance when they are to the leward to him, & if one runs, should there be thousands in the herd, they will all run; but the buffalo in the Plains will not run half so far when frightened as those that are found amongst the woods. These will sometimes run & gallop several miles before they even stop the least. Those in the Plains generally stand several shots, particularly if the first shot kills, before they run away. Those in the woods seldom more than 1 shot. The Grass on fire which burns very briskly about 5 miles off. No firewood here. The women fetch it from a small hammock, about 2 miles of towards the Mountain. Fresh Gales at West, pretty clear.
>
> 29th Saturday - At 11 1/2 AM brought a herd of Buffalo, about 50, into the Pound. They also brought several more herds but they all broke out amongst the Dead Men. (Fidler:December 27-29, 1792)

The above description is a rare eye-witness account of the version of the pis´kun common to the Piegan and Blood Indians. The pound apparently had three sides of wood, the fourth side being the cliff face where the fall occurred.

Writing in 1843, John Audubon described the type of pis´kun witnessed by Fidler, attributing this impounding method to the Blackfoot, Gros Ventre and Assiniboine, who were all apparently especially adept at the practice.

> . . . it rarely happens that some of them do not escape. This, however, is not the case when the animal is pounded, especially by the Gros Ventres, Black Feet, and Assiniboins. These pounds are called "parks," and the Buffaloes are made to enter them in the following manner: The park is sometimes round and sometimes square, this depending much on the ground where it is put up; at the end of the park is what is called a precipice of some fifteen feet or less, as may be found. It is approached by a funnel-shaped passage, which like the park itself is strongly built of logs, brushwood, and pickets, and when all is ready a young man, very swift of foot, starts at daylight covered over with a Buffalo robe and wearing a Buffalo head-dress. The moment he sees the herd to be taken, he bellows like a young calf, and makes his way slowly towards the contracted part of the funnel, imitating the cry of the calf, at frequent intervals. The Buffaloes advance after the decoy; about a dozen mounted hunters are yelling and galloping behind them, and along both flanks of the herd, forcing them by these means to enter the mouth of the funnel. Women and children are placed behind the fences of the funnel to frighten the cattle, and as soon as the young

> man who acts as decoy feels assured that the game is in a fair way to follow to the bank or "precipice," he runs or leaps down the bank, over the barricade, and either rests, or joins in the fray. The poor Buffaloes, usually headed by a large bull, proceed, leap down the bank in haste and confusion, the Indians all yelling and pursuing till every bull, cow, and calf is impounded. Although this is done at all seasons, it is more general in October or November, when the hides are good and salable. Now the warriors are all assembled by the pen, calumets are lighted, and the chief smokes to the Great Spirit, the four points of the compass, and lastly to the Buffaloes. The pipe is passed from mouth to mouth in succession, and as soon as this ceremony is ended, the destruction commences. Guns shoot, arrows fly in all directions, and the hunters being on the outside of the enclosure, destroy the whole gang, before they jump over to clean and skin the murdered herd. Even the children shoot small, short arrows to assist in the destruction. It happens sometimes however, that the leader of the herd will be restless at the sight of the precipices, and if the fence is weak will break through it, and all his fellows follow him, and escape. The same thing sometimes takes place in the pen, for so full does this become occasionally that the animals touch each other, and as they cannot move, the very weight against the fence of the pen is quite enough to break it through; the smallest aperture is sufficient, for in a few minutes it becomes wide, and all the beasts are seen scampering over the prairies, leaving the poor Indians starving and discomfited. (1960, Vol. 2:145-146)

Blood Indian John Cotton described the Blood Indian pis´kun for Hugh Dempsey in an interview conducted on January 4, 1957. Mr. Cotton related what he had been told about the pis´kun by his mother and other relatives. He described a method of butchering and dividing the kill which is unique among accounts of buffalo pounds.

> When the Bloods used a piskun, they had piles of stones or anything they could hide behind; these formed two V-shaped lines from the top of the cliff out onto the prairie for quite a distance. They used the piskuns in the late fall, just before winter. When a herd has been sighted near the piskun the people would hide behind the stones and wait for the men to call the buffalo.
>
> The two men who called them were known as Awah-kee or buffalo chasers. They had a call -- oh oh oh -- an owl-like call, which would make the buffalo bunch up. When they got within the outer parts of the V, the people hiding behind those stones would jump up and stampede the herd. The frightened buffalo would run forward and, each time they swerved to one side, the people hiding behind the stones would jump up and wave robes and blankets at them. When they got to the edge of the cliff, the buffalo couldn't stop because the rest of the herd was behind them.

> At the bottom of the cliff the Bloods built a big corral of poles. At the place where the poled (sic) joined, they were bound together with rawhide.
>
> The first buffalo over the cliff were usually killed by the fall or were trampled to death by the others. As the rest of the herd came over the cliff, some were only wounded or were even unhurt, but these were killed by arrows.
>
> After the run was finished, the Bloods either slaughtered the animals inside the corral or, if there was too big a pile, they were dragged outside the corral and butchered. As long as there was any meat to be had, they would camp there. In the slaughtering, everything was taken and the surplus meat was either dried or made into pemmican. (Dempsey 1957a:1-2)

Sarcee Buffalo Pounds

Diamond Jenness recorded the following description of the Sarcee buffalo pound as recollected by Sarcee Indian informants:

> Where nature had provided no suitable cliff the Indians erected corrals or pounds into which they drove the buffalo, there to be shot down from the barriers. The shape of the early Sarcee pound is not known. The present day Indians remember only those they built in the latter half of the nineteenth century, which were rectangular enclosures of logs lashed together with rawhide and raised to as great a height as possible. One long side of the rectangle was banked with earth on its outer face, so that it presented a gentle slope to approaching buffalo but terminated at the pound in a sheer drop. To prevent the herd from breaking away to either side a fence of logs extended outward for a short distance from each of the two front corners, and these fences were prolonged for half a mile or more by two gradually diverging lines of men, women, and children, stationed behind willows or blankets. Down this laneway one or two horsemen guided the buffalo; the sentinels then closed in behind them and all united with wild yells to drive the terrified animals pell-mell into the trap.
>
> The Sarcee retained a clear recollection of the erection of these pounds during the summer months, but not during the winter. At that season they said, they hunted in small groups, each consisting, until horses became plentiful, of several footmen under a leader on horseback. The leader generally selected one man, mounted, if possible, on a spare horse, to search out the buffalo. He himself then pursued and shot down the animals; and his followers butchered the meat, carried it back to the camp, and divided it equally among the different families. Theoretically the leader could retain all the hides, though in practice he nearly always shared them also. If, however, he needed a new tent for himself, he could call on the wives of his followers to tan the necessary hides in payment for the meat they had received. (1938:14-17)

For Jenness' diagram of a Sarcee buffalo pound see Figure 3.

Assiniboine Buffalo Pounds

The Assiniboine Indians, who were considered to be experts at impounding buffalo, usually built buffalo pounds on or at the base of a slope or on level ground. Since the hunting territory of the Assiniboine ranged between the Upper Missouri River to the south, and the parkland fringe of Saskatchewan and Manitoba to the north, the Assiniboine frequently came in contact with both American and Canadian traders. Consequently, the hunting methods of the Assiniboine have been relatively well documented.

The ethnographer Robert Lowie provided the following description of the bison pounds of the Assiniboine, based on information from informants and historic accounts:

> At the foot, or on the declivity, of rising land, stakes were driven into the ground to the height of about four or five feet, forming a circular enclosure of about an acre in area, and the intervening spaces were filled up with logs, dry boughs and rocks. Small openings were left to allow dogs to feed upon the abandoned carcasses of the bulls. From the sides of the entrance two barriers diverged up the inclined plane and were extended for a considerable distance. In the centre of the pen there was planted a medicine-pole with charms suspended from it. After the favorable report of scouts sent out by the medicine-man in charge of the hunt to reconnoitre the country for bison herds, foot soldiers hid along the oblique lines walling the passage to the pen, or continued them by spreading at distances of from ten to fifteen feet from the extremities of the fences. The two lines were further prolonged by mounted men, or, if necessary, by women and children, until the farthest guard was about two or three miles from the pen, and nearly as far from the corresponding member of the other line. One, or more men disguised in a buffalo robe and wearing buffalo horn headdresses were next dispatched to approach the herd of buffalo, and, by imitating the cry of a calf, to decoy them into the funnel-shaped passage. As soon as the bison had passed them, the horsemen cut off the retreat in the rear, and drove the animals towards the circular enclosure. The decoyer rushed into the pen and out at the other side by an opening left for that purpose. The buffalo followed, sometimes breaking their legs in jumping in, as the descent might be six or eight feet and stumps were left standing there. Those uninjured began to circle around inside. If any attempted to run out, skins were shaken at the entrance to scare them back. Only if some managed to make their escape, were guns fired; otherwise, the ensnared bison were dispatched with arrows. In the hunt witnessed by De Smet six hundred bison were captured in this way.

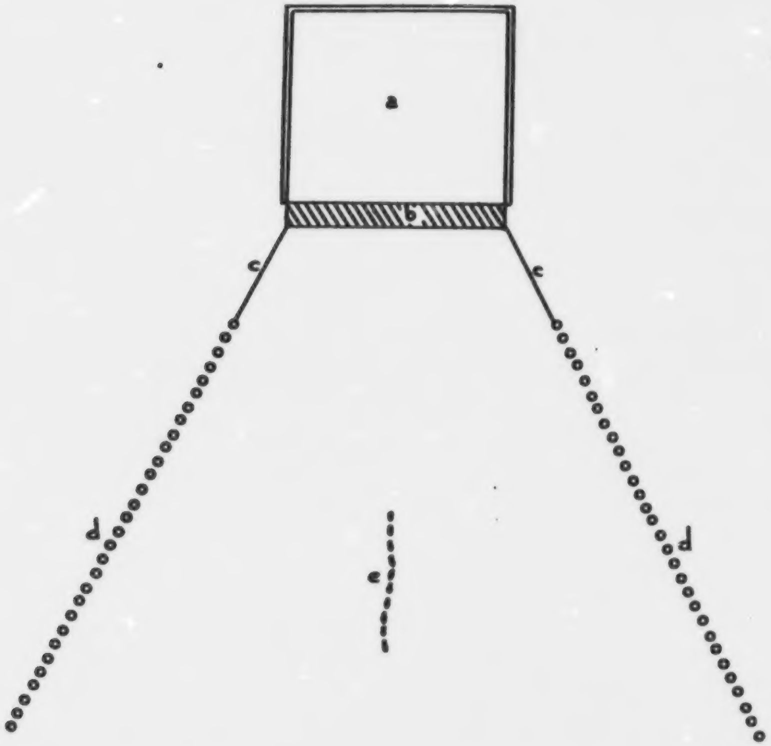


Figure 3: Diagram of a Sarcee buffalo pound. (a) corral of notched rails, built as high as possible; the logs were often lashed together with rawhide; (b) an embankment consisting of a railed fence with earth heaped against the outside, giving an easy incline to the approaching buffaloes, but leaving a sheer drop into the corral; (c,c) lines of logs resting on the ground at one end, at the other in the fork of a post; (d,d) men and women behind willows or blankets to guide the buffaloes; (e) buffaloes; (f) man on foot or horseback driving them (Jenness 1938:16).

> As to the apportionment of the buffalo killed in a tribal hunt, accounts vary. According to the older Henry, all the tongues were presented to the chief, and together with the hearts and shoulder-lumps were stowed away for feasts. De Smet states that the skins and meat were divided among the families in proportion to their size. According to one of my informants, the drivers were entitled to the fattest animals. According to the younger Henry, each man identified his game by the property mark on his arrow, while the master of the pound divided the animals, giving each tent an equal share without reserving any for himself. Everyone was, however, obliged to send him a certain portion, as the ceremonies of the chase were performed in his lodge. (1909:10-12)

The earliest historic account of an Assiniboine pound was recorded by the adventurer Alexander Henry (the Elder) in February, 1776. According to Kehoe (1973:172), the pound described by Henry was located south of present-day Melfort, Saskatchewan.

> In the morning we went to the hunt accordingly. The chief was followed by about forty men and a great number of women. We proceeded to a small island on the plain, at the distance of five miles from the village. On our way we saw large herds of oxen at feed, but the hunters forbore to molest them, lest they should take the alarm.
>
> Arrived at the island, the women pitched a few tents while the chief led his hunters to its southern end where there was a pound, or enclosure. The fence was about four feet high, and formed of strong stakes of birchwood, wattled with smaller branches of the same. The day was spent in making repairs, and by the evening all was ready for the hunt.
>
> At daylight several of the more expert hunters were sent to decoy the animals into the pound. They were dressed in ox skins, with the hair and horns. Their faces were covered, and their gestures so closely resembled those of the animals themselves that had I not been in the secret I should have been as much deceived as the oxen.
>
> At ten o'clock one of the hunters returned, bringing information of the herd. Immediately all the dogs were muzzled and, this done, the whole crowd of men and women surrounded the outside of the pound. The herd, of which the extent was so great that I cannot pretend to estimate the numbers, was distant half a mile, advancing slowly and frequently stopping to feed. The part played by the decoyers was that of approaching them within hearing and then bellowing like themselves. On hearing the noise the oxen did not fail to give attention, and whether from curiosity or sympathy, advanced to meet those from whom it proceeded. These, in the meantime, fell back deliberately toward the pound, always repeated the call whenever the oxen stopped. This was reiterated till the

> leaders of the herd had followed the decoyers into the jaws of the pound, which, though wide asunder toward the plain, terminated like a funnel in a small aperture, or gateway, and within this was the pound itself. The Indians remark that in all herds of animals there are chiefs, or leaders, by whom the motions of the rest are determined.
>
> The decoyers now retired within the pound and were followed by the oxen. But the former retired still farther, withdrawing themselves at certain movable parts of the fence, while the latter were fallen upon by all the hunters, and presently wounded and killed by showers of arrows. Amid the uproar which ensued the oxen made several attempts to force the fence, but the Indians stopped them, and drove them back by shaking skins before their eyes. Skins were also made use of to stop the entrance, being let down by strings as soon as the oxen were inside. The slaughter was prolonged till the evening, when the hunters returned to their tents. Next morning all the tongues were presented to the chief, to the number of seventy-two.
>
> The women brought the meat to the village on sledges drawn by dogs. The lumps on the shoulders, and the hearts, as well as the tongues were set apart for feasts, while the rest was consumed as ordinary food, or dried for sale at the fort.
>
> The time was now passed in dancing and festivity in all quarters of the village. On the evening of the day after the hunt the chief came to our tent, bringing with him about twenty men and as many women, who separately seated themselves as before; but they now brought musical instruments, and soon after their arrival began to play. The instruments consisted principally in a sort of tambourine, and a gourd filled with stones, which several persons accompanied by shaking two bones together; and others with bunches of deer hoofs, fastened to the end of a stick. Another instrument was one that was no more than a piece of wood of three feet with notches cut on its edge. The performer drew a stick backward and forward along the notches, keeping time. The women sang; and the sweetness of their voices exceeded whatever I had heard before.
>
> This entertainment lasted upward of an hour; and when it was finished a dance commenced. The men formed themselves into a row on one side, and the women on the other, and each moved sidewise, first up and then down the room. The sound of bells and other jingling materials attached to the women's dresses enabled them to keep time. The songs and dances were continued alternately till near midnight, when all our visitors departed.
>
> These amusements were given to us complimentarily by the chief. He took no part in the performances himself, but sat smoking while they proceeded. (Quaife 1921:284-287)

In his "Some Account of the Red River", John McDonnell recorded the following observations of the Assiniboine of the early 1790s:

> These people generally winter together in large camps and, make what the French call, parcs, an enclosure of wood in form of a fence and circular into which they drive whole herds of buffalos. This seems to be an ancient custom amongst all Indians inhabiting the plains, being a method that all travellers through these parts speak of, and which they want neither powder nor ball to execute.
>
> The night previous to their sending for the buffalos, two or more young men make themselve ready - by a harangue the chief makes, for Indians know no command - to go and fetch the buffalos. Two, and sometimes even one, is sufficent to bring them to the ranks where tufts of bushes and other obstacles are stuck up in the snow or ground to hide a person behind it from the buffaloes, and thus every man, women and child in the camp have their stations.
>
> A good runner frequently goes before the band with the hair of his robe outwards and half bent, so as to represent a buffalo and, by that means, decoys them into the park which has a small door to make him a passage out.
>
> After the band is entered, the women stand upon the door which has an easy ascent upon the outside, but is quite steep within, and the paramount of the camp lights a pipe and offers the end to the buffaloes or to some old bull among them whom he takes for the father or chief of the band and, after thanking the Master of Life for sending food to themselves and to their children, he harangues him something to this effect: "My
> "Grandfather, we are glad to see you, and happy
> "to find that you are not come in a shameful manner,
> "for you have brought plenty of your young men
> "with you. Be not angry at us; we are obliged
> "to destroy you to make ourselves live".
>
> After the harangue is over, they smoke their pipes, sitting around the Parc, and then shoot all the herd down with their arrows; fire arms are prohibited upon this occasion. The slaughter being finished, the chief of the Park distributes a little swansdown, coloured in vermillion, upon each buffalo's head, and leaves every person at liberty to take what he thinks proper. But, so superstitious are these people, that the chief of the park thinks that if he were to eat any of this meat thus killed, it would be out of his power to make buffaloes enter his park ever after; so he must have meat killed in the open field for his own use. (1889:279-280)

The fur trader Duncan M'Gillivray visited a buffalo pound on the Vermilion River, near Fort George, on November 23, 1794. According to Kehoe (1973:173), the pound was apparently at an Assiniboine camp.

> 22nd. - Sent off 20 men for meat. A young man arrived from the Grand Mains Buffalo Pound at the Paint River for Tobacco &c. - Mr. McDonald and me are permitted to pay them a visit and Mr. Shaw sends the Chiefs 2 gallons Rum, 1 fm Tobaco & ammunition each to encourage

them to make plenty pounded meat. 23d. Novr. - We sett off after breakfast with 10 men, who have obtained leave to visit the Pound in order to satisfy their curiosity by seeing the Buffalo enter it. At night killed a Bull, part of which we roasted for supper in a thicket of wood where we had chosen our Campment to secure us from the effects of a very cold northerly wind. We retired to rest at the usual time, like Don Quixote under the open Canopy of Heaven, wrapt up in our robes and enjoyed a refreshing nights rest, notwithstanding we found ourselves covered with 3 inches of Snow next morning.

At day break we mounted our Horses and arrived at the Pound at 10 O'clock. The Chiefs of the Band welcomed us at the entrance of the Camp, from whence the Master of the Pound conducted us into his Lodge, where a feast was quickly prepared and served round. The laws of hospitality are strictly observed by most of the friendly tribes of this Country: - they bestow the best part of the Lodge covered with Clean robes on a Stranger; treat him with great attention and respect; in short they ever anticipate his wants by providing every thing in their power which they suppose to be most acceptable; indeed their officiousness is sometimes disgusting particularly in their Medicine feasts, where the Guests are forced to Swallow whatever quantity of food is presented before them. On one of these occasions I was supplied with about 3 lbs of Pimican, a composition made of equal parts of Pounded Meat & Grease, and tho' I would willingly dispense with 2/3 of the quantity, yet I was under the necessity of eating it all, as the contrary would be considered an unpardonable insult by the Master of the ceremony. These people are remarkable for a dirty slovenly disposition - paying no regard to decency or cleanliness. On my asking for a drink of Water, a young woman presented me with a wooden dish (encrusted with the remainder of many a delicious feast) containing some in which a child had been washed a few moments before & which was afterwards cooled by the addition of a little snow, & the Kettle in which the operation had been performed was used soon after to boil meat for our next repast. - On arriving at the Camp our noses were assailed by an offensive smell which would have proved fatal to more delicate organs: It proceeded from the Carcases in the Pound and the mangled limbs of Buffaloes scattered among the Lodges, but another substance which shall be nameless contributed the most considerable part of this diabolical odour. - In the afternoon we were gratified by seeing the Buffalo enter the Pound; - they were conducted thither by two small fences beginning on each side of the door and extending wider the farther they advance in the Plain: from behind these the Indians Waved their robes as the Buffaloes were passing to direct their course streight towards the Pound, which was so well constructed on the declivity of a small hill that it was invisible till you arrived at the gate. The poor animals were scarce enclosed, when showers of arrows were discharged at them as they rushed round the Pound making furious attempts to revenge themselves on their foes, till at length being overcome with wounds & loss of blood they were compelled to yield to their oppressors and many of them were cut to pieces before the last remainder of life had forsook them. Of all the methods which the Indians have devised for the destruction of this usefull animal, - the Pound is the most successful. (1929:42-44)

The following description of an Assiniboine pound is contained in the 1799-1814 journal of Northwest Company fur trader Alexander Henry (the Younger):

> It is supposed that these people are the most expert and dexterous nation of the plains in constructing pounds, and in driving buffalo into them. The pounds are of different dimensions, according to the number of tents in one camp. The common size is from 60 to 100 paces or yards in circumference, and about five feet in height. Trees are cut down, laid upon one another, and interwoven with branches and green twigs; small openings are left to admit the dogs to feed upon the carcasses of the bulls, which are generally left as useless. This inclosure is commonly made between two hummocks, on the declivity or at the foot of rising ground. The entrance is about ten paces wide, and always fronts the plains. On each side of this entrance commences a thick range of fascines, the two ranges spreading asunder as they extend, to the distance of 100 yards, beyond which openings are left at intervals; but the fascines soon become more thinly planted, and continue to spread apart to the right and left, until each range has been extended about 300 yards from the pound. The labor is then diminished by only placing at intervals three or four cross-sticks, in imitation of a dog or other animal (sometimes called "dead men"); these extend on the plain for about two miles, and double rows of them are planted in several other directions to a still greater distance. Young men are usually sent out to collect and bring in the buffalo - a tedious task which requires great patience, for the herd must be started by slow degrees. This is done by setting fire to dung or grass. Three young men will bring in a herd of several hundred from a great distance. When the wind is aft it is most favorable, as they can then direct the buffalo with great ease. Having come in sight of the ranges, they generally drive the herd faster, until it begins to enter the ranges, where a swift-footed person has been stationed with a buffalo robe over his head, to imitate that animal; but sometimes a horse performs this business. When he sees buffaloes approaching, he moves slowly toward the pound until they appear to follow him; then he sets off at full speed, imitating a buffalo as well as he can, with the herd after him. The young men in the rear now discover themselves, and drive the herd on with all possible speed. There is always a sentinel on some elevated spot to notify the camp when the buffalo appear; and this intelligence is no sooner given than every man, woman and child runs to the ranges that lead to the pound, to prevent the buffalo from taking a wrong direction. There they lie down between the fascines and cross-sticks, and if the buffalo attempt to break through, the people wave their robes, which causes the herd to keep on, or turn to the opposite side, where other persons do the same. When the buffalo have been thus directed to the entrance of the pound, the Indian who leads them rushes into it and out at the other side, either by jumping over the inclosure or creeping through an opening left for that purpose. The buffalo tumble in pell-mell at his heels, almost exhausted, but keep moving around the inclosure from E. to W., and never in a direction against the sun. What

> appeared extraordinary to me, on those occasions, was that, when word was given to the camp of the near approach of the buffalo the dogs would skulk away from the pound, and not approach until the herd entered. Many buffaloes break their legs, and some their necks, in jumping into the pound, as the descent is generally six or eight feet, and stumps are left standing there. The buffalo being caught, the men assemble at the inclosure, armed with bows and arrows; every arrow has a particular mark of the owner, and they fly until the whole herd is killed. Then the men enter the pound, and each claims his own; but commonly there is what they term the master of the pound, who divides the animals and gives each tent an equal share, reserving nothing for himself. But in the end he is always the best provided for; everyone is obliged to send him a certain portion, as it is in his tent that the numerous ceremonies relating to the pound are observed. There the young men are always welcome to feast and smoke, and no women are allowed to enter, as that tent is set apart for the affairs of the pound. Horses are sometimes used to collect and bring in buffalo, but this method is less effectual than the other; besides, it frightens the herds and soon causes them to withdraw to a great distance. When horses are used, the buffalo are absolutely driven into the pound; but when the other method is pursued, they are in a manner enticed to their destruction. (Coues 1897:518-520)

Henry's remarks on the disadvantages of using horses in traditional buffalo drives provide insight into why decoys were still used in buffalo drives during the historic period.

Charles Larpenteur, a fur trader in the Upper Missouri River area during the years 1833-1872, made the following observations of the Assiniboine method of impounding buffalo:

> In regard to their "medicine," one performance which has attracted my attention I do not attribute to magic but to skill. This is the way in which they bring a band of buffalo into their pens. Such a pen is constructed of poles, and bushes, and any other combustibles they can obtain to make a kind of fence, which is by no means sufficient to keep in the buffalo. This inclosure is made of different sizes, but is generally capable of containing 200 or 300 buffaloes. It is made round, and a pole is stuck up in the middle, with scarlet cloth, kettles, pans, and a great many other articles tied to the top. Those are sacrifices to the Great Spirit, made by the individual who is to go after the buffalo. When the pen is finished two wings are made extending a great distance from the entrance, like an immense quail net. These wings are made either of snow or of buffalo chips, gathered at intervals into small heaps sufficiently large to conceal a person. As the pen must be made where there is little wood, it frequently happens that the buffalo are discovered two or three days' march from the spot. When all is ready, the medicine man starts after the buffalo. When the people of the camp see him coming, they all surround the pen, except those who are stationed at intervals along the wings, each hidden behind a pile

> of snow or chips. The buffalo follow him, and when the last one has passed, the herd being completely within the wings, the people all rise from their places of concealment. The buffalo then rush into the pen. Then the people who surround the pen also rise up, and are joined by those who were behind the wings. The buffalo, being frightened, keep away from the sides of the pen, running around the pole in the middle; though it sometimes happens that, the pen being too small or too weak, they break through in spite of all the Indians can do. With their bows and arrows the Indians begin the work of destruction, and go on till all the Buffalo are killed. It is a good sight to see that one Indian bring in a large band of buffalo, which has followed him for two or three days. He is considered a great medicine man. (1898:409-411)

The trader Edwin Thompson Denig spent several years in the Upper Missouri River area during the mid-nineteenth century and was well acquainted with the culture of the Native tribes of the area. He recorded the following remarks on the Assiniboine method of impounding:

> Throwing Buffalo in a Park. - This is the most ancient mode of hunting, and probably the only successful one prior to the introduction of firearms and horses, as their bows and arrows are insufficient for killing buffalo on foot. We know of no nation now except the Assiniboin and Cree who practice it, because all the rest are well supplied with horses that can catch the buffalo, therefore they are not compelled to resort to these means to entrap them.
>
> Every year thousands of them are caught in this section by the Assiniboin, and at the time we are writing there are three parks in operation a short distance from this, all doing a good business. When a camp of 30 to 60 lodges find themselves deficient in guns and horses they move to a suitable place to build a park, and there wait the approach of buffalo toward it. Most streams have high bluffs on each side and a valley between. They therefore pitch their camp in the valley opposite and near a gap of perpendicular descent through the hills; a high level plain being beyond the bluffs. They cut timber and plant strong posts in the ground nearly in a circular form and fill up the openings between with large logs, rocks, bushes, and everything that will in any way add to its strength, inclosing an area of nearly an acre of ground. This enclosure is run up the sides of the hill to the gap or entrance C, though neither it nor the camp is visible from the place beyond. The whole is planned and managed by the master of the park, some divining man of known repute, who is believed to have the power of making the buffalo come into it by his enchantments.
>
> On the plains beyond, and commencing where the wood mark leaves off, are thrown up piles of earth, about 3 feet high and large enough to conceal a man lying behind them, which are about 18 paces apart and extended in angles to the distance of a quarter to half a mile in proportion as there are people to man them. When these arrangements are completed, four fast running young men are selected by the

manager whose duty it is to scour the country every day or two, making a circuit of about 20 miles in discovery of buffalo, and report to headquarters. The master in the meantime commences his magic arts as follows: A flagstaff or pole is planted in the centre of the park, to the top of which is attached a yard or two of scarlet cloth, some tobacco, and a cow's horn. This is a sacrifice to the Wind. At the foot of the same are placed two or three buffalo Heads which are painted red, decked out in feathers, and new kettles with scarlet cloth and other things placed before them. These are given to the Buffalo Spirits.

Another Head painted and decked very gaudily is placed in the lodge of the master, who smokes and invokes it, at times singing the Bull Song, which he accompanies with a rattle nearly all night, and prophesies as to their appearance of success in the morning. A man is now chosen who is to lead the buffalo within the lines, and there are but few among them who can do it. When the discoverers have reported buffalo to be within 8 or 10 miles of the camp, and the wind is favorable, the master, after great ceremonies to the Heads, and making them other sacrifices, gives notice that a throw must be made, sending all the camp to take their stations behind the piles of earth lying down; he remains in camp, keeping up a singing, rattling, and smoking - with invocations all the time. The person who brings the buffalo mounts a horse and meets them a great distance from camp. When within about 150 yards of the herd he covers his body with his robe, lies along the horse's back, and imitates the bleating of a buffalo calf.

The whole mass immediately moves toward him. He retreats toward the pen, always keeping to the windward of them, and about the same distance ahead, renewing the noise of the calf whenever they appear to stop. They gemerally follow him as fast as his horse can gallop, and in this way alone he conducts them within the lines of the angle. Of course as soon as they are a short distance in, the scent of one of the anglles reaches them but it is now too late, they have closed in behind. The animals now take fright and rush from one line to another, but seeing people on both sides (who rise as the buffalo attempt to get through) they keep straight forward. The leader on horseback now makes his escape to one side, and the whole herd plunges madly dowm the precipice, one on top of the other, breaking their legs and necks in the fall. Into the pen they tumble, those in front having no power to stop. They are forced on by the pressure from behind and frightened by the yelling and firing of the savages. When all have passed into the pen the work of slaughter commences, with guns and bows firing as long as any appearance of life remains. From 300 to 600 are thus thrown in at one time by a small camp, and two or three days are required to skin and cut them up.

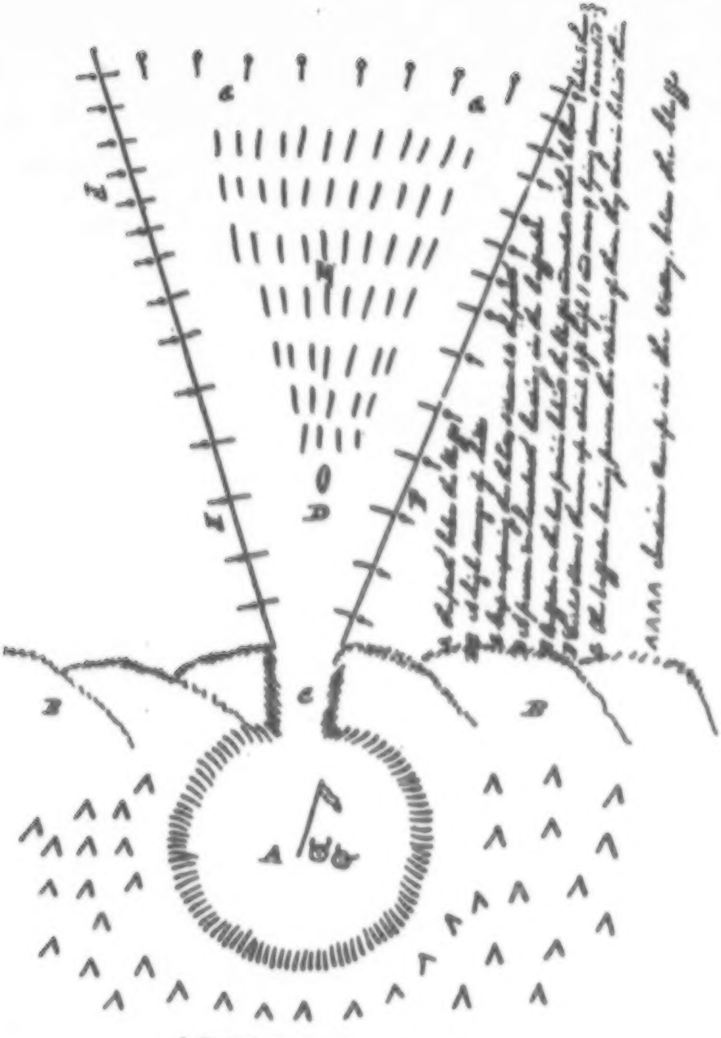
Men, women, and children now commence skinning. Each secures as many hides as he can skin. The master of the park claims a portion for his share, indeed all are said to belong to him, but he does not take more than the rest. All the tongues, however, are his, and he also receives other payment for his services in presents, besides the standing of a divining man . . .

> When there is a deficiency of people to man the angles they are made by placing the lodges of the camp in that form, but this can only be done when they have a dozen or two fast horses to extend the angle of the lodges and force the buffalo within the lines. This is also done, but it does not succeed as well as the way described. Great is the joy and feasting in camp after a large throw. (1930:532-534)

Denig's diagram of an Assiniboine pound is presented in Figure 4.

The missionary, Father Pierre De Smet, a contemporary and acquaintance of Denig, wrote the following description of an Assiniboine pound in use "at the base of the Rocky Mountains". The Assiniboine were apparently in a very large encampment of 2,000 to 3,000 people. De Smet's account contains a rare description of the enforcement of pre-hunt restrictions prior to a traditional drive.

> The tribes of the desert find their subsistence in the chase; the flesh of animals affords them food, and the skins clothing. Before the arrival of the whites, the method of killing the different species of animals was very simple, consisting ordinarily of stratagems and snares. They still have recourse to the primitive method in the hunt for large animals, when they have no horses capable of pursuing them, and powder and ball for killing them are wanting.
>
> The trap prepared for the bison is an inclosure or pen, and is one of the more early ways, and perhaps the most remarkable in its execution; it demands skill, and gives a high idea of the sagacity, activity, and boldness of the Indian. As on all other occasions of moment, the jugglers are consulted, and the hunt is preceded by a great variety of superstitious practices. I witnessed one of these hunts in the base of the Rocky Mountains, and of this I will endeavor to give you a faithful detail.
>
> The bisons roam the prairies in herds of several hundreds and often of several thousands. On many of my travels I have seen with my own eyes, as far as I could discern on these immense plains, thousands and thousands of these noble animals moving slowly, like an interminable troop, in one direction, and browsing the grass as they progress. They have a fearful appearance; their hairy heads inspire with terror those who are ignorant of the pacific habits of this noble quadruped. Indeed, such is their timidity that one man can put to flight the most numerous herd. When alarmed, the tramp of their hoofs, their bellowings, and the columns of dust which they raise, resemble the deep murmurs of a tempest mingled with peals of thunder, lessening as they grow more remote. The flesh of the bison is much esteemed and very nourishing; it is deemed the daily bread of all the Indian tribes on the great plains.



A BUFFALO PARK OR "SURROUND"

Figure 4: Diagram of an Assiniboine buffalo pound by Edwin Thompson Denig (1930:532).

A tribe that has few guns, few horses to run down the animals, which needs provisions, and skins for clothing (and such was the condition of our Assiniboins), must employ the old or primitive method of hunting, which has existed from time immemorial.

The Indians whom I saw engaged in it were encamped on a suitable place for the construction of a park or inclosure. The camp of which I speak contained about three hundred lodges, which represents 2000 or 3000 souls. They had selected the base of a chain of hills, whose gentle slope presented a narrow valley and a prairie, in which all the lodges were ranged. Opposite the hills there was a fine large prairie.

After the construction of the lodges, a great council is held, at which all the chiefs and all the hunters assist. They first choose a band of warriors to hinder the hunters from leaving the camp, either alone or in detached companies lest the bisons be disturbed, and thus be driven away from the encampment. The law against this is extremely severe; not only all the Indians of the camp must conform to it, but it reaches to all travellers even when they are ignorant of the encampment or do not know that there is a hunt in contemplation. Should they frighten the animals, they are also punishable; however, those of the camp are more rigorously chastised in case they transgress the regulation. Their guns, their bows and arrows, are broken, their lodges cut in pieces, their dogs killed, all provisions and their hides are taken from them. If they are bold enough to resist the penalty, they are beaten with bows, sticks, and clubs, and this torment frequently terminates in the death of the unhappy aggressor. Any one who should set fire to the prairie by accident or imprudence, or in any way frighten off the herd, would be sure to be well beaten.

As soon as the law is promulgated, the construction of the pen is commenced. Everybody labors at it with cheerful ardor, for it is an affair of common interest, on which the subsistence of the entire tribe during several months will depend. The pen has an area of about an acre. To inclose it in a circular form, stakes are firmly fixed in the ground, and the distance between them filled with logs, dry boughs, masses of stone - in short, with whatever they can find that will answer the purpose. The circular palisade has but one opening; before this opening is a slope embracing fifteen or twenty feet between the hills: this inclined plane grows wider as it diverges from the circle; at its two sides they continue the fence to a long distance on the plain.

As soon as these preparations are completed, the Indians elect a grand-master of ceremonies and of the pen. He is generally an old man, a distinguished personage, belonging to Wah-kon, or medicine-band, and famous in the art of jugglery, which the Indians, as I have remarked, deem a supernatural science. His office it is to decide the moment for driving the bisons into the inclosure, and give the signal for the commencement of the hunt. He plants the medicine mast in the centre of the park, and attaches to it the three charms which are to allure the animals in that direction, viz., a streamer of scarlet cloth two or three yards long, a piece of tobacco, and a bison's horn. Every morning at the early dawn he beats his drum, intones his hymns of conjuration, consults his own Wah-kon, and the manitous or guiding spirits of the bisons, in order to discover the favorable moment for the chase.

The grand-master has four runners at his disposal who go out daily and report to him the true result of their observations; they tell at what distance from the camp the animals are, their probable number, and in what direction the herd is marching. These runners frequently go forty or fifty miles in different directions. In all their courses they take with them a Wah-kon ball, which is intrusted to them by the grand master: it is made of hair and covered with skin. When the runners think that the suitable moment has arrived, they immediately dispatch a man of their number to the grand-master, with the ball and the good news. So long as the mysterious ball is absent, the master of ceremonies cannot take food; he prolongs this rigorous fast by abstaining from every meat or dish that does not come from some animal killed on the area of the park, until the hunt is over; and as they often remain a month or more awaiting the most favorable moment of beginning, the grand-master must find himself reduced to very small rations, unless he makes some arrangement with his conscience. It is probable that he eats stealthily at night, for he has no more appearance of fasting than his brethren of the camp.

Let us now suppose all to be in readiness, and the circumstances all favorable to the hunt. The grand-master of the park beats his drum, to announce that the bisons are in numerous herds at about fifteen or twenty miles distance. The wind is favorable, and comes directly from the point in which the animals are. Immediately all the horsemen mount their coursers; the foot-soldiers armed with bows, guns, and lances, take their positions, forming two long oblique diverging rows, from the extremity of the two barriers which spring from the entrance of the pen and extend into the plain, and thus prolong the lines of the inclosure. When the footmen are placed at distances of ten or fifteen feet, the horsemen continue the small lines, which separate in proportion as they extend, so that the last hunter on horseback is found at about two or three miles distance from the pen, and at very nearly the same distance from the last hunter of the other line, in an opposite direction. When men are wanting, women and even children occupy stations.

After the formation of these two immense lines, one single Indian, unarmed, is sent upon the best courser in the camp in the direction of the buffaloes, to meet them. He approaches, against the wind, and with the greatest precaution. At the distance of about one hundred paces he envelops himself in a buffalo-hide, the fur turned outside, and also envelops his horse as much as possible in the same manner and then makes a plaintive cry in imitiation of that of a bison calf. As if by enchantment, this cry attracts the attention of the whole herd; after some seconds, several thousands of these quadrupeds, hearing this pitiful plaint, turn towards the pretended calf. At first they move slowly, then advance into a trot, and at last they push forward in full gallop. The horseman continually repeats the cry of the calf, and takes his course towards the pen, ever attentive to keep at the same distance from the animals that are following him. By this stratagem he leads the vast herd of bisons through the whole distance that separates him from his companions, who are on the *qui vive*, full of ardor and impatience to share with him in his sport.

When the buffaloes arrive in the space between the extremities of the two lines, the scene changes; all assume an appearance of eagerness. The hunters on horseback, giving rein to their steeds, rejoin each other behind the animals. At once the scent of the hunters is communicated among the frightened and routed animals, which attempt to escape in every direction. Then those on foot appear. The bisons, finding themselves surrounded and inclosed on all sides, except the single opening into the circular pen before them, low and bellow in the most frightful manner, and plunge into it with the speed of fear and desperation. The lines of hunters close in gradually; and space becomes less necessary as the mass of bisons and the groups of hunters become more and more compact. Then the Indians commence firing their guns, drawing their arrows, and flinging their lances. Many animals fall under the blows before gaining the pen: the greater number, however, enter. They discover, only too late, the snare that has been laid for them. Those in front try to return, but the terrified crowd that follow forces them to go forward, and they cast themselves in confusion into the inclosure, amid the hurrahs and joyful shouts of the whole tribe, intermingled with the firing of guns.

As soon as all are penned, the buffaloes are killed with arrows, lances, and knives. Men, women, and children, in an excitement of joy, take part in the general butchery, and the flaying and cutting up of the animals. To look at them without disgust in this operation, one must have been a little habituated to their customs and manners. While men cut and slash the flesh, the women, and children in particular, devour the meat still warm with life - the livers, kidneys, brains, &c., seem irresistible attractions: they smear their faces, hair, arms, and legs with the blood of the bisons; confused cries, clamorous shouts, and here and there quarrels, fill up the scene. It is a picturesque and savage scene, a very pandemonium - a sight very difficult to depict by words or to recount in minute details. In the hunt which I have just described, and at which I was present, six hundred bison were taken.

After the butchery, the skins and the flesh are separated into piles, and these piles are divided among the families, in proportion to the number of which they are composed. The meat is afterwards cut in slices and dried; the bones are bruised and their grease extracted. The dogs also receive their portion of the feast, and devour the remains on the area of the pen. Two days after the hunt not a vestige of the carnage remained. Before separating, the Indians pass several days in dancing and mirth. (1972:147-153)

A description of the method of impounding used by the Assiniboine Indians was related to Mary Weekes by informant Dan Kennedy in 1948.

> The making of a buffalo pound called for ingenuity and skill. The first step was to find a suitable location; that is, a place where there was a natural drop - as in a ravine - of about five feet, which was to be a "jump-off" or entrance to the pound or trap. If such a natural terrain could not be found, an artificial drop was constructed. The trap was a circular area of from forty to ninety feet in diameter, depending on the size of the camp and the number of buffalo the hunters wished to entrap. This trap was surrounded by a strong fence built of poles attached to posts (on the prairie, poplar poles were used), into which were woven branches and willows to present the appearance of solid walls. In the centre of this area a tall pole was planted, or if a tree were convenient, it was left. From this pole or tree, the Chief caused to be suspended a stuffed raven or magpie, both meat-eating birds. Only one aperture was left in the fence. This was opposite the entrance for the buffalo and was only for the entrance and exit of the poundmaker.
>
> The "mystic" dimension of the entrance for the buffalo was usually seven paces wide or the length of the two flint dried buffalo hides which curtained off the entrance as soon as the buffalo entered the pound. In other words the width of the opening was about twenty-one feet. The flint (or dried) buffalo hides, which curtained off the enclosure, made a rattling noise which kept the buffalo from going near it once they were in the pound. Thus, the weakest part of the pound, Indian ingenuity made the strongest.
>
> Two wing lines or fences (about six panels of poles) also attached to posts were then built and continued with "fascines" which flared out from the entrance. These fascines were branches, underbrush, and twigs tied in bundles and attached to willow twigs planted in the ground. Close to the panels of poles, these fascines or lead-up fences were placed close together, giving the appearance of solidity, but as they extended out they were spaced farther and farther apart. The lead-up fences were continued for a distance of two or three miles, but they were not as substantially built as the wing portions nearer the trap.
>
> When all was ready, the dedication of the pound took place. This was an elaborate and sacred ceremony extending over a period of four days. The preliminary rites took place in the teepee of the poundmaker. To quote Dan Kennedy:
>
>> "At the time of the poundmaking, two buffalo teepees were set up, facing the setting sun, to which the poundmaker addressed the invocation, "Wee-yogh-peyam Tatanka-num teepee-no" (sun-setting-towards-buffalo-two-teepees). This was a plea for the success of the undertaking.

> "Here objects of veneration were exposed. They were a buffalo head, Symbol of the presiding Manitou of the buffalo, and the raven or magpie, whose help was invoked for the success of the buffalo pound as they were allies of the undertaking, being carnivorous and depending upon meat. The sacrificial offerings were placed near the objects of veneration. These consisted of from two dozen to one hundred peeled fruit tree (saskatoon or other fruit) sticks, about eighteen inches long. Half of these were painted red, the other half were painted yellow. A number of these sticks were sacrificial offerings of sweat baths, a religious rite, the delight of the Manitou, to invoke his aid in the projected hunt. The greater number of these pledges, however, were simple sacrificial offerings.
>
> "For four successive nig[illegible] the invocation ceremony kept up. On the fourth night, before [illegible]n, the buffalo driver, whose name was Toka-Ki-He-Kuna (He Who Comes First), left quietly to join up with his brothers, the buffalo, where they roamed or fed. After the poundmaker himself, Toka-Ki-He-Kuna was the most important man in the undertaking as the success of bringing in the buffalo depended upon his subtlety and cunning. 'He-Who-Brings-Them-In,' he was called."

When the buffalo driver left, the poundmaker entered the pound through the aperture, taking his sacred objects, and continued with his invocation, sitting near these objects of veneration and the sacrificial offerings. He filled the sacred pipe with kiniknik (Indian tobacco) and incensed it over burning sweet grass. Then, holding it aloft, he offered the smoke to the Great Manitou, invoking his intercession for a successful poundmaking.

The mystic rattler was then incensed. It was made of "rawhide in the shape of a gourd." The hide was filled with earth or sand and allowed to dry, then the earth or sand was poured out. The hide was now hard and into this gourd-shaped affair a few pebbles were dropped. At one end a handle was inserted. This made an excellent rattler. Standing with it in his hand, the poundmaker began to chant the mystic canticles or call for his brothers, the buffalo, "invoking the two 'Tatanka' deities towards the setting sun," keeping time with his rattler to the rhythm of his chant until he was warned of the approach of the herd. When the herd approached the "jump-off" he left. All poundmakers did not have the same religious ceremonies in connection with their work. White Raven (Kanghiska) caused himself to be "suspended from the centre-post in a sort of hammock or swing made of buffalo thongs and from this hammock he chanted for his brothers, the buffalo, to come."

The buffalo driver manoeuvred the herd by directing smoke in their direction, being careful to keep out of sight. The smoke he contrived by keeping alight with dried buffalo chips the burning ember - a piece of wood - which he carried. There were no matches in those days and flint was used to kindle fires. He was careful to keep in a position where the wind would waft the smoke toward the

> buffalo and send them moving in the direction of the "Was-a-tomp," or mouth of the pound. It was extremely important that he keep to windward of the moving buffalo.
>
> Always a second hunter acted as a decoy to lead the herd into the flare of the pound as it approached. If on foot, he covered himself with a buffalo robe; if on horseback, he simulated the appearance of a buffalo, being careful to keep far enough away to support his disguise. Once the driver got the buffalo inside the mouth of the pound, his work was done. Then, he either concealed himself behind the fascines or rode off.
>
> At this point the other hunters who were hiding behind the fascines, and spaced at proper distances, took over. It should be remembered that the signposts or fences (fascines), which fanned out from the trap to the wide opening, were only little bundles of willows planted in the ground - a slight surge of the moving animals and they would be through. By bobbing up behind the fascines, alternately, the hunters kept the herd moving steadily and surely into the pound. These hunters, so concealed, had to be skillful and alert in their movements, lest the buffalo become frightened and break through the fragile fences. Once inside the pound, the rattling curtain of flint hides kept the buffalo safely away from the entrance.
>
> After the buffalo were killed, they were distributed equitably among those camps of Indians that had taken part in the hunt or poundmaking. After the division of the kill and after the carcasses had been skinned and cut up and each participant apportioned his share, the enclosure was cleaned up. A pound usually held from forty to sixty buffalo. According to Dan Kennedy, the pounds were not responsible for the destruction of the buffalo. "The buffalo pound is a sacred institution and invoked only when very necessary. It is not a commercial enterprise and should not be viewed in that light." (1948:14-17)

Plains Cree Buffalo Pounds

Buffalo pounds were well known to the Cree Indians who occupied the parkland region and the adjacent northern plains during the late eighteenth and the nineteenth centuries. Along with the Assiniboine, they were considered to be the most adept at impounding buffalo during the nineteenth century. The Cree and Assiniboine were the poorest in horses of all the northern plains tribes; therefore, buffalo impounding was more crucial to their subsistence.

The earliest recorded description of a Cree buffalo pound was by John Franklin in February, 1820. This pound was near Carlton House.

> The buffalo pound was a fenced circular space of about a hundred yards in diameter; the entrance was banked up with snow, to a

> sufficient height to prevent the retreat of the animals that may once have entered. For about a mile on each side of the road leading to the pound, stakes were driven into the ground at nearly equal distances of about twenty yards; these were intended to look like men, and to deter the animals from attempting to break out on either side. Within fifty or sixty yards from the pound, branches of trees were placed between these stakes to screen the Indians, who lie down behind them to await the approach of the buffalo.
>
> The principal dexterity in this species of chase is shewn by the horsemen, who have to manoeuvre round the herd in the plains so as to urge them to enter the roadway, which is about a quarter of a mile broad. When this has been accomplished, they raise loud shouts, and, pressing close upon the animals, so terrify them that they rush heedlessly forward towards the snare. When they have advanced as far as the men who are lying in ambush, they also rise, and increase the consternation by violent shouting and firing guns. The affrighted beasts, having no alternative, run directly into the pound, where they are quickly despatched, either with an arrow or gun.
>
> There was a tree in the centre of the pound, on which the Indians had hung strips of buffalo flesh and pieces of cloth as tributary or grateful offerings to the Great Master of Life; and we were told that they occasionally place a man in the tree to sing to the presiding spirit as the buffaloes are advancing, who must keep his station until the whole that have entered are killed. . . . this species of hunting . . . is very similar to that of taking elephants on the Island of Ceylon, but upon a smaller scale. (1969:112-113)

Approximately twenty years later, the missionary Robert Rundle observed a buffalo pound east of Fort Edmonton, at Beaver Lake. He did not witness a successful hunt; however, he did observe the remains of previous pounds.

> Jan. 16 - Went in morning to visit Buffalo Pond, situated a short distance from the camp. The pond was strewn with half-devoured carcasses of the animals, the spoils of previous captures. These fragments afforded a fine feast for the wolves which came during the night seasons and gorged themselves at their pleasure. I had hoped to witness the capture of buffaloes by the method of decoying them but was doomed to be disappointed. Two or three herds were driven near the entrance whilst I remained there but they escaped by rushing off in a contrary direction to that of the mouth of the pond. (Dempsey 1977:49)

The artist Paul Kane, a contemporary of Robert Rundle, witnessed a group of Cree Indians impounding buffalo near Fort Carlton on September 12, 1846. He seemed to have been greatly impressed by what he viewed as the wastefulness of the method.

We were accompanied by a party of hunters proceeding to a buffalo pound about six miles off. These pounds can only be made in the vicinity of forests, as they are composed of logs piled up roughly, five feet high, and enclose about two acres. At one side an entrance is left, about ten feet wide, and from each side of this, to the distance of half a mile, a row of posts of short stumps, called dead men, are planted at the distance of twenty feet each, gradually widening out into the plain from the entrance. When we arrived at the pound we found a party there anxiously awaiting the arrival of the buffaloes, which their companions were driving in. This is accomplished as follows: - A man, mounted on a fleet horse, usually rides forward till he sees a band of buffaloes. This may be sixteen or eighteen miles distant from the pound, but of course the nearer to it the better. The hunter immediately strikes a light with a flint and steel, and places the lighted spunk in a handful of dried grass, the smoke arising from which the buffaloes soon smell and start away from it at the top of their speed. The man now rides up alongside of the herd, which, from some unaccountable propensity, invariably endeavour to cross in front of his horse. I have had them follow me for miles in order to do so. The hunter thus possesses an unfailing means, wherever the pound may be situated of conducting them to it by the dexterous management of his horse. Indians are stationed at intervals behind the posts, or dead men, provided with buffalo robes, who, when the herd are once in the avenue, rise up and shake the robes, yelling and urging them on until they get into the enclosure, the spot usually selected for which is one with a tree in the centre. On this they hang offerings to propitiate the Great Spirit to direct the herd towards it. A man is also placed in the tree with a medicine pipe-stem in his hand, which he waves continually, chaunting a sort of prayer to the Great Spirit, the burden of which is that the buffaloes may be numerous and fat.

As soon as all the herd are within the pound, the entrance is immediately closed with logs, the buffaloes running around and round one after another, and very rarely attempting to break out, which would not be difficult, from the insufficiency of the structure. Should one succeed in doing so the whole herd immediately follow. When once in the enclosure the Indians soon despatch them with their arrows and spears.

Whilst the buffaloes were being driven in, the scene was certainly exciting and picturesque; but the slaughter in the enclosure was more painful than pleasing. This had been the third herd that had been driven into this pound within the last ten or twelve days, and the putrefying carcasses tainted the air all round. The Indians in this manner destroy innumerable buffaloes, apparently for the mere pleasure of the thing. I have myself seen a pound so filled up with their dead carcasses that I could scarcely imagine how the enclosure could have contained them while living. It is not unusual to drive in so many that their aggregate bulk forces down the barriers. There are thousands of them annually killed in this manner; but not one in twenty is used in any way by the Indians, so

> that thousands are left to rot where they fall. I heard of a pound, too far out of my direct road to visit, formed entirely by the bones of dead buffaloes that had been killed in a former pound on the same spot, piled up in a circle similarly to the logs above described. This improvidence in not saving the meat, often exposes them to great hardships during the seasons of the year in which the buffalo migrates to the south. (1925:80-82)

A unique description of a bison pound was written by the explorer Henry Youle Hind, who witnessed a pound operated by Cree Indians near the Sand Hills of present-day Saskatchewan on July 25, 1857. Hind's account is unusual not only because it describes a summer bison drive, but also because it seems to describe a corral that was built around an excavated pit. Hind described the old pound that had been broken by an entrapped herd of buffalo, and the replacement pound, built a short distance away.

> They were about constructing a new pound, having literally filled the present one with buffalo, and being compelled to abandon it on account of the stench which arose from the putrifying bodies. We sat on the ground and smoked, until they thought it time for us to accompany them to their encampment. Mis-tick-oos had hurried away to make preparations for "bringing the buffalo," the new pound being nearly ready. He expressed, through his son, a wish that we should see them entrap the buffalo in this pound, a rare opportunity few would be willing to lose.
>
> We passed through the camp to a place which the chief's son pointed out, and there erected our tents. The women were still employed in moving the camp, being assisted in the operation by large numbers of dogs, each dog having two poles harnessed to him, on which his little load of meat, pemmican, or camp furniture was laid. After another smoke, the chief's son asked me, through the interpreter, if I would like to see the old buffalo pound, in which they had been entrapping buffalo during the past week. With a ready compliance I accompanied the guide to a little valley between sand hills, through a lane of branches or trees, which are called "dead men" to the gate or trap of the pound. A sight most horrible and disgusting broke upon us as we ascended a sand dune overhanging the little dell in which the pound was built. Within a circular fence 120 feet broad, constructed of the trunks of trees, laced with withes together, and braced by outside supports lay tossed in every conceivable position over two hundred dead buffalo. From old bulls to calves of three months old, animals of every age were huddled together in all the forced attitudes of violent death. Some lay on their backs with eyes starting from their heads, and tongue thrust out through clotted gore. Others were impaled on the horns of the old and strong bulls. Others again, which had been tossed, were lying with broken backs two and three deep. One little calf hung suspended on the horns of a bull which had impaled it in the wild race round and round the pound.

The Indians looked upon the dreadful and sickening scene with evident delight, and told how such and such a bull or cow had exhibited feats of wonderful strength in the death-struggle. The flesh of many of the cows had been taken from them, and was drying in the sun on stages near the tents. It is needless to say that the odour was overpowering, and millions of large blue flesh flies, humming and buzzing over the putrefying bodies was not the least disgusting part of the spectacle. At my request the chief's son jumped into the pound, and with a small axe knocked off half a dozen pair of horns, which I wished to preserve in memory of this terrible slaughter. "To-morrow," said my companion, "you shall see us bring in the buffalo to the new pound."

After the first "run," ten days before our arrival, the Indians had driven about 200 buffalo into the enclosure, and were still urging on the remainder of the herd, when one wary old bull, espying a narrow crevice which had not been closed by the robes of those on the outside, whose duty it was to conceal every orifice, made a dash and broke the fence, the whole body then ran helter skelter through the gap, and dispersing among the sand dunes escaped, with the exception of eight who were speared or shot with arrows as they passed in their mad career. In all, 240 animals had been killed in the pound, and it was its offensive condition which led the reckless and wasteful savages to construct a new one. This was formed in a pretty dell between sand hills, about half a mile from the first, and leading from it in two diverging rows, the bushes they designate "dead men" and which serve to guide the buffalo when at full speed, were arranged. The "dead men" extended a distance of four miles into the prairie, west of and beyond the Sand Hills. They were placed about 50 feet apart, and between the extremity of the rows might be a distance of from one and a half to two miles.

When the skilled hunters are about to bring in a herd of buffalo from the prairie, they direct the course of the gallop of the alarmed animals by confederates stationed in hollows or small depressions, who, when the buffalo appear inclined to take a direction leading from the space marked out by the "dead men," show themselves for a moment and wave their robes, immediately hiding again. This serves to turn the buffalo slightly in another direction, and when the animals, having arrived between the rows of "dead men," endeavour to pass through them, Indians here and there stationed behind a "dead man," go through the same operation, and thus keep the animals within the narrowing limits of the converging lines. At the entrance to the pound there is a strong trunk of a tree placed about one foot from the ground, and on the inner side an excavation is made sufficiently deep to prevent the buffalo from leaping back when once in the pound. As soon as the animals have taken the fatal spring they begin to gallop round and round the ring fence looking for a chance of escape, but with the utmost silence women and children on the outside hold their robes before every orifice until the whole herd is brought in; they then climb to the top of the fence, and, with the hunters who have followed closely in the rear of the buffalo, spear or shoot with bows and arrows or fire-arms at the bewildered animals, rapidly

> becoming frantic with rage and terror, within the narrow limits of the pound. A dreadful scene of confusion and slaughter then begins, the oldest and strongest animals crush and toss the weaker; the shouts and screams of the excited Indians rise above the roaring of the bulls, the bellowing of the cows, and the piteous moaning of the calves. The dying struggles of so many huge and powerful animals crowded together, create a revolting and terrible scene, dreadful from the excess of its cruelty and waste of life, but with occasional displays of wonderful brute strength and rage; while man in his savage, untutored, and heathen state shows both in deed and expression how little he is superior to the noble beasts he so wantonly and cruelly destroys. (1971, Vol. 1:355-359)

Hind is noteworthy for his dramatic, if not overly so, presentation of the scene. Later in his work, Hind exclaimed:

> In hunting the buffalo they are filled with excitement, but no scene or incident seems to have such a maddening effect upon them as when the buffalo are successfully driven into a pound. Until the herd is brought in by the skilled hunters, the utmost silence is preserved around the fence of the pound: men, women, and children, with pent-up feelings, hold their robes so as to close every orifice through which the terrifed animals might endeavour to escape. The herd once in the pound, a scene of diabolical butchery and excitement begins; men, women, and children climb on the fence, and shoot arrows or thrust spears at the bewildered buffalo, with shouts, screams, and yells horrible to hear. But when the young men, and even women jump into the area amidst the dying and the dead, smear themselves with blood, thrust their arms up to the shoulders into the reeking bodies of their victims, the savage barbarity of the wild prairie Indian shows itself in its true colours. Not even a scalp dance over many fallen foes, affords such a terrible picture of degraded humanity as a large band of prairie Indians, some hundreds in number, during and after the slaughter of buffalo in the pound. (1971, Vol. 2:142-143)

Hector and Vaux, members of the Palliser Expedition, made the following comments, taking Hind's account into consideration:

> During the winter, as the buffalo seeks the shelter of the partially wooded zone of country, the Plains Indians tent nearer the North Saskatchewan, or towards the Touchwood Hills and Fort Carlton. In winter these Indians construct "pounds" for capturing the buffalo in great numbers in order to procure their skins for the manufacture of robes for the Hudson's Bay Company.
>
> These pounds are strongly fenced enclosures generally hid in a small bluff of woods; the herd is guided into them by black spots of brushwood, or other substance, laid, in converging lines for miles over the snow. The frightened animals, not liking to pass these bushes, are constrained to enter the pound by an inclined road, ending in a sudden jump of six or eight feet, so that they are unable

> to return. A picture of one of these pounds may be seen in Franklin's voyage, and in Mr. Hind's recent volume. Mr. Hind has indeed given a circumstantial account of the construction of one of these pounds during summer; but though we were in this country for three years, and at the very place which Mr. Hind describes, we never heard of this practice of the Indians at a period of the year when the snow was off the ground. (1861:249-250)

James Hector recorded a more detailed account of a Cree Pound observed in 1857 in the area of present-day Vermilion, Alberta.

> December 26. - This morning we were off by 4:30 a.m., and had gone a considerable distance, when we saw fresh traces of Indians, and soon heard the bawling and screaming of an immense camp, all in a high state of excitement. Diverging from our path to pay them a visit, we found that they had succeeded in driving a large band of buffalo into their "pound" during the night, and were now engaged in slaughtering them. The scene was more repulsive than pleasant or exciting. The pound is a circular strong fencing, about 50 yards in diameter, made of stakes with boughs interlaced, and into this place were crammed more than 100 buffalos, bulls, cows, and calves. A great number were already killed and the live ones were tumbling about furiously over the dead bodies of their companions, and I hardly think the space would have held them all alive without some being on the top of the others, and, in addition, the bottom of the pound was strewn with fragments of carcases left from former slaughters in the same place. It was on a slope, and the upper part of the fencing was increased in height by skins stretched on poles, for the purpose of frightening the buffalo from jumping out. This is not needed at the lower part of the enclosure, as the animals always endeavour to jump up-hill. The entrance to the enclosure is by an inclined plane made of rough logs leading to a gap through which the buffalo have suddenly to jump about six feet into the ring, so that they cannot return. To this entrance converge lines of little heaps of buffalo dung or brush from several miles into the prairies which surround the clump of wood in which the pound is concealed. These lines serve to lead the buffalo in the required direction when they have been driven into the neighbourhood. When first captured and driven into the pound, which difficult matter is effected by stratagem, the buffalo run round and round violently, and the Indians affirm always with the sun. Crouched on the fencing were the Indians, even mere boys and young girls, all busy plying bows and arrows, guns and spears, and even knives, to compass the destruction of the buffalo. After firing their arrows they generally succeeded in extracting them again by a noose on the end of a pole, and some had even the pluck to jump into the area and pull them out with their hands; but if an old bull or a cow happened to observe them they had to be very active in getting out again. The scene was a busy but a bloody one, and has to be carried on until every animal is killed to enable them to get the meat. I helped, by trying the penetrating power of rifle balls on the shaggy skulls of the animals, with invariable success; and it is the least cruel way of killing them, as they drop at once. There are many superstitions connected with the

> whole business, and the Indians always consider their success in procuring buffalo in this manner to depend on the pleasure of the Manitoe to whom they always make offerings, which they place under the entrance to the pound, where I saw a collection of Indian valuables, among which were bridles, powder horns, tobacco, beads, and the like, placed there by the believing Indians, only to be stolen by the first scamp in the camp who could manage the theft adroitly. In the centre of the pound, also, there is a tall pole on which they hang offerings. To which piece of idolatry I was in a manner accessory by giving them my pocket handkerchief to convert into a flag. (Palliser 1863:70-71)

The missionary John McDougall also described a Cree buffalo pound, of which he witnessed many during the 1860s. This is one of the lengthiest descriptions available.

> The camp we were now in was in their language engaged in "sitting by the place of bringing them in." This sentence of eight words in English is covered by one word of seven syllables in Cree, Pe-tah-gionte-hon-uh-be-win. This in short English would mean "pound-keeping". If the migration of the buffalo was west, then the mouth of the pound was west also. If this was north, the mouth of the pound was placed to the north, as it seemed to be the instinct of the buffalo when startled to run back in the direction whence he had recently come. In that direction he knew the great herds were roaming, and when startled he would fall back on these. Long before the white man came to the country, some Indians, more thoughtful than the rest, had noticed this, and concluded that a trap or corral might be built, wherein to catch them in larger numbers than they could be obtained by killing with the bow and arrows. Out of this happy thought was evolved the habit of building pounds, and killing buffalo wholesale in them.
>
> In connection with this there was another evolution of men who became experts in bringing buffalo into the pound. These men professed to be aided by the "spirits," of "familiars," of whom they dreamt. The conjurers were not slow to make use of the "pound" business, and claimed that they could by their medicine make a pound lucky or unlucky as they pleased; all of which, as time went on, wove itself into the faith and tradition of the people, and gave these cunning fellows revenue and influence in the camps of their tribes. Eccelsiasticism and sacerdotalism were to the front, as they always are among ignorant and passively religious people. The situation of a pound was generally on the south or east side of a gently rising hill, the west or north side of this hill being prairie or open country, and the east or south side of it timber. In this timber, not far from the summit, the Cree pound was erected. This was done by chopping and clearing away the timber from a circular space - say one hundred, or one hundred and twenty-five feet in diameter. From this circle all the brush and trees, with the exception of one tree in the centre, were cleared out, and around this circle a strong fence of logs and brush was built, strong enough and high enough to

hold the buffalo. At the entrance, which was made about twenty feet wide, a causeway, or sloping corduroy bridge, was built up of timber, so that there was a "jump off" into the pound of about three feet. The idea of a gate or bars had not dawned upon the people, as I will presently show. From the entrance on either side a strong brush and log fence was run out towards the north or west as was convenient. These gradually diverged as they left the corral, until, at the end of a hundred yards or more, they were almost that distance apart. From the ends of the fence bundles of willows were placed on end at regular intervals for a mile or more, their outside terminals being fully a mile apart. These were called "watching waiters."

While the pound, the fence, and the "waiters" were being built and placed, the conjurers of the camp were making "strong medicine," wherewith to give luck and magnetism to the pound. For days and nights these medicine-makers and general dealers in the supernatural had pounded their drums and sang themselves hoarse; and now that the pound was ready for dedication, they organized a procession, and went on with the consecration of the pound and its accessories to the object in view. With solemn visages and in dignity of attitude, these priests of the old faith took their places at the head of the procession. With their medicine-bags in hand they stood like statues, while the rest formed in line, drummers and singers next to the priests. Then the whole camp, or as many as could attend, followed. At a signal the drums beat, the song was raised at the head, and then taken up all along the whole line, and to time they stepped away around the bluff, and turning into the fence, came down the lane, up over the causeway, and jumped into the pound. Turning to the left they marched around the circle of the pound, and then with short petitionary speeches, the conjurers proceeded to hang their medicine-bags on the limbs of the lone tree which stood in the centre. This done, the pound was dedicated, consecrated, and declared ready for work.

The next thing needed was buffalo. If these were within a few miles of the camp, the man who had fat horses, and desired the tongues of the buffalo, be they many or few, that might be brought into the pound in one "fetch," would take his horse, ready saddled and bridled, to the tent of an expert at "bringing in," and say to him, "Here is my horse; now then go after them." Then the O-noh-che-buh-how, or "Who-Goes-After-Them," makes ready slowly and with dignity, assuming the air of one upon whom a grave responsibility is thrust, but who nevertheless is perfectly conscious that he is the one man to bear it, and perform the task entrusted to him. Thus he mounts the horse and rides forth.

This man is keenly watched by those who are on the lookout from the highest ground in the vicinity. The whole camp is in a flutter of excitement. Is the time propitious? Are the spirits friendly? Will the medicine work? Will "Who-Brings-Them-In" be wise in his handling of the buffalo? Is the pound properly located? Everybody is anxious about the new untried pound. As in the minds of other peoples the wide world over, here also was the strange mixing of reason and practice, and logic and superstition. But now those on the lookout are making signs, and it is shouted throughout the camp, "He has started a herd!" Again another sign. "The herd is a big one!" is the shout that electrifies every man, woman and child in the encampment; and while the thrill of this is still upon them, behold, there is another sign, and the joyful news rings forth: "They are coming straight!" Again the signal is given. "Make ready; to your places, O men!" and there is a movement by all the able-bodied men to the lines of fence which reach out from the door of the pound, where they place themselves opposite to one another. Behind the fence, and even beyond it, behind heaps of snow and brush, the men lie in waiting until the head of the herd passes them, when from each side they rise simultaneously and urge the buffalo on into the pound.

While all this is going on near the pound and in the camp, "Mr. Who-Brings-Them-In" is doing his level best with brain and voice and horse. Lay of country and direction of wind are noted. As he rode out he looked at the position of the sun. He pulled a little of the hair off his robe and let it go above his head to determine the exact direction of the wind. This he did on a hill, so that the movement of air would not be influenced by hills and valleys. When he sighted the buffalo he stopped, and lighting his pipe thought out the whole plan as well as he could, with the known quantities before him. For what was as yet unknown he held his pipe-stem skyward, and humbly petitioned the spirits to help him. Then he shook his pipe, and detaching the stem, he put both into his fire-bag, and remounting his horse started for the buffalo. If these were scattered he set out to bunch them. Riding slightly to windward and dismounting he pulled a small bunch of dried grass out of his bosom, and chipping off a bit of punk he placed it on his flint. Striking this with his steel, when the punk caught fire he dropped it into a little nest he had prepared in the grass; then he waved this to and fro, and if the grass caught fire soon he was satisfied. If not, he took a few grains of powder from his horn and dropped them on the spark of fire on the punk, making a flame which speedily fired the grass. In a very little time the keen scenting buffalo would notice the tiny puff of smoke and move together.

Having bunched the buffalo, if they moved in the right direction he let them go and quietly watched them from a distance. If they went to one side, he headed them back either with a whiff of smoke as before, or by letting them catch a glimpse of himself. Thus he brings them within the long line of "watching waiters"; and now the herd is becoming excited, and begins to move rapidly. Riding close, he heads them on. If they rush too fast one way, he drops behind, and rides across their track the other way; and as he does this at a quick gallop, he utters a series of strange, queer cries which seem to be almost hypnotic in their influence, for the head of the bunch jumps his way as if in response to the weird cry. When the herd is going as he wants, he talks to them encouragingly: "That is right, O mother cow; you are doing well, keep right on; you will gladden many hearts, you will fill many stomachs, you will warm and cover many bodies." Then he would give his shrill cry, and as I have ridden beside these men when bringing in buffalo, it has seemed to me as if they had bridles in the mouths of the leaders of the herds, as these passively jumped to do their bidding. The man seemed transformed, energized, intensely consecrated to the object in view, and thus his spirit became masterful and strong in its purpose.

Now the lines of "watching waiters" are rapidly converging. The side to side rushes of the excited herd are becoming shorter, and follow one another in quick succession. Both man and buffalo are fast approaching the crucial point. It is now but two or three hundred yards to the end of the lines of brush and humanity. If the herd should break to either side before these are reached, the driver will be humiliated, the new pound made unlucky, and the whole camp sadly disappointed. "Who-Brings-Them-In" feels all this and makes supreme effort - throws his whole soul into the work. He calls, he urges, he petitions, he rides fearlessly and recklessly. Now the head of the herd is past the first of the line of concealed men, and these rise together, and others, and others, and on in a mad, wild rush sweep the deceived and thoroughly affrighted buffalo over the "jump off" and into the pound. "Who-Brings-Them -In" stays not for congratulations, but gallops to his tent, leaps from the horse, rushes in to his couch and flings himself on it, exhausted but triumphant. Perhaps that afternoon, to help him fully recover, some old friend will give him a Turkish bath.

I have described what happened when the buffalo were convenient to camp - say two or three hours' distant; but often they were a long distance away. Then the process was different. Another expert would start from camp on foot, and travel twenty, thirty or fifty miles into the north or west country, and at last, finding a suitable herd, he would slowly, by strategem, by smoke and scent, work these toward the pound. Sometimes he would have to wait for hours for a "convenient season." Sometimes he would of necessity run for miles as fast as his strength and wind would permit, in order to turn the trend of movement into a more favorable direction for his object, and thus, after wearying days and nights, his bunch of buffalo would be sighted from the lookout, and "Who-Brings-Them-In" would ride forth and meet him, and take the herd in his turn, and the foot man would return to camp and rest.

What surprised me was that these men who went after buffalo and endured such physical hardship and nervous strain, did not receive anymore than the rest in the partition of what buffalo might be brought into the pound. The man who owned the horse got the tongues, but those men who did the wonderful work of bringing in had the glory. Like the chiefs, who planned and lived for the people without any remuneration, these were the patriots of the camp.

But to return to my description of the pound. Soon the last buffalo was over the "jump off," and you may depend upon it, he was not far behind the rest, for the crowd of yelling Indians at the heels of the herd. When all were in, the door or gap was suddenly filled by a solid line of men, who pulled their robes before them,

> and stood without a move as the mad herd settled into a gallop around the pound, always running as the medicine man had walked, and that was with the sun. In the meantime the pound was surrounded by the people of the camp, all rejoicing because of the success of the enterprise. Pound and medicine and men had all been blessed, and the hearts of the people were thankful.
>
> Presently the twing of an arrow told that the work of slaughter had begun, and this was continued with arrow and flint-lock until all the large animals in the herd were dead. Then the boys were turned into the pound to fight the calves, and many a chase the calves gave them; sometimes driving the boys back up on the timber and brush of the walls of the pound. When all were dead, someone deputed for the duty would mount the back of a dead bull or big cow, and apportion the hunt.
>
> "Slapped-in-the-Face, take that one."
> "Hollow Back, you take that one."
> "Who-is-Struck-in-the-Back, you have that one."
> "Crooked Legs, there is yours."
> "Red Bank, take that one."
> "The-Man-Who-Strikes-the-Sun, here is yours."
> "Bear's Child, this is for you."
> "Wolf Teeth, cut that one up," etc.
>
> In stentorian voice this man would divide the spoil, and soon the pound was full of men and women taking off the robes, cutting up the meat, and "packing" these to the tents. In a little while the new pound is left to the dogs, who in their turn hold high carnival among the refuse, fighting and feeding to the full. Not one buffalo is allowed to escape. The young and the poor must die with the strong and fat, for it is believed that if these were spared they would tell the rest, and so make it impossible to bring any more buffalo into a pound. (1896:272-282)

A more recent account of Cree impounding practices is contained in the recollections of the well known guide Kootenai Brown.

> I Remember Neech-a-moose (his Indian wife) telling me of a practise used by the Crees in killing buffalo in the early days and I have seen it used on one or two occasions myself. Stakes were stuck in the ground in a large circle with wings extending out on the prairie gradually narrowing into a small opening in the enclosure. On the stakes were hung pieces of old cloth and buffalo skin and around the tops of the stakes a string of rawhides binding them all together. Into this enclosure the buffalo were driven and Indians speared or shot them.
>
> The remarkable thing about this method of taking buffalo was that the coral was a flimsy thing that a child could have pushed over, but the animals would mill about in it afraid to touch its sides. I have heard that when the Canadian Government was rounding up the buffalo it bought in the States from Bablo the riders lined

> the corrals with cotton just for the same reason as the Indians hung the pieces of cloth and rawhide on theirs. Buffalo would break through the strongest corral in their wild state but the cotton, rags, rawhide and anything else they could get to tie on the stakes held the big beasts off the enclosure sides. When the Indians got the herd into the big corral they were kept in commotion by the unearthly yells of old men, women and children while the slaughter was going on. Ruins of some of these old buffalo pounds are still to be seen on the south branch of the Saskatchewan River and I am told that a place in Alberta called Jumping Pond was originally Jumping Pound because there was an old Indian corral there in which buffalo were taken in the way I have just described.
>
> A very ingenious method was used for luring buffalo into these pounds. In every Indian or half-breed camp there was generally found an Indian or two that possessed the art of drawing buffalo to them. Buffalo would follow him. It seems incredible but it's a fact. His plan was to get on a fast horse and ride out where the buffalo were. He would ride up within three hundred or four hundred yards of the herd and then begin swinging himself from one side to another in his saddle. This attracted the attention of the buffalo and they would, out of curiosity, begin to crowd toward him. The swinging was accompanied by a weird yelling and the rider would start his horse in a zig-zag path toward the pound or corral. I have seen this done several times and have tried to imitate it but I can't. I have never seen a white-man that could. Half-breeds sometimes had the gift or charm or what ever it was. If there is not such a man in camp one is sent for, sometimes a couple of hundred miles. These fellows are called "Callers" and seem to possess a sort of animal magnetism. The buffalo finally come to a staring attitude and at the right moment the rider makes a dash for the opening in the corral and the buffalo after him. The opening is closed up and hunters with guns, bows and arrows and spears concealed behind the stakes spring up and the slaughter begins. (1919-1920:79-81)

Robert Jefferson made the following remarks on Cree buffalo pounds used in the latter half of the nineteenth century:

> While on the subject of the characteristic customs of the Cree Indians, it may not be without interest to dwell shortly on pounds. The poundmaker was in a class by himself. He was a professional. By virtue of the teaching of his Familiar, he could guide the buffalo in any direction he pleased. The spirits of the buffalo communed with him in his dreams, and were at his command when he needed them. In no other way can the unsophisticated Indian explain the facility with which a herd of buffalo was seduced to its destruction. The co-operation of ordinary individuals was, however, necessary - also a favorable location. The bush must be handy and the lie of the land suitable. Season mattered not; either summer or winter would do. The Master's aid must be sought and nominally compensated - this in conformity with the invariable practice of those privileged with superhuman power.

For the pound, a down grade was best, but not imperative. At the lower end a circular fence of brush was made, several feet thick, and eight feet high, thirty or so yards in diameter. Occasionally, two fences were made, one opening into the other. The opening or entrance, was about ten feet wide and floored with sticks - that is trees of a few inches in diameter. This platform was sloped gradually up to the top of the fenced enclosure, while the descent into the pound was abrupt, so that the buffalo, in their frenzied rush, would tumble in but would be obliged to climb out. A lane, with brush fences on each side and leading up to the gate, was made outside the enclosure. This was so designed, that a sharp turn near the pound hid from the frightened animals the trap that was prepared for them. This was critical point and the fences were strongly built. From here, outwards, for a long distance, the lane gradually grew wider apart till, eventually, isolated bunches of brush, behind which a person might hide took the place of the fences.

Indians who could be relied on to bring the buffalo within the range of the hidden beaters were few. Many tried it; some could do it occasionally. Wonderful tales are told of this or that man who could make the buffalo follow a song to their destruction, but they are generally too wonderful for belief. So it would appear that the successful poundmaker was an Indian observant enough to acquire an intimate knowledge of the habits of the buffalo and at the same time sufficiently shrewd to put his familiarity to use. Halfbreed hunters say that the animals were possessed with the idea that they were being headed off, if a horseman got close up to them, and that they would persistently try to forge round the front; in which case, of course, they might be herded in any direction by a rider with a horse fast enough. Once decoyed past the outlying brush; the task is comparatively easy. An Indian jumps up from his hiding place, waves his blanket and the herd shies off to the other side cannoning, as it were, from one side to the other, till they enter the brush lane. They are scared into hurrying on and the further they get the more incessant becomes the hue and cry, till their efforts to escape assume the proportions of a stampede. Behind the brush lanes too, people are stationed to prevent the frightened animals from breaking through the fences and to shoo them into the pound. Over the inclined threshold into the enclosure they go. A dancing crowd of Indians with waving blankets and shouts, blocks the entrance way, and the frantic herd mills round and round until shot down by the hungry foes that encompass them. Dead and dying are pitted together in a writhing mass, till the knife ends the butchery.

Then all hands bend to the task before them. Flaying is done as best it may since the floor is too crowded for scientific work but the hides are stripped off; tid-bits of raw liver, fat, and kidney assuage the immediate pangs of hunger, while the meat is being stripped from the bones for the orgies of feeding that last till plenty becomes scarcity again. But, after all, there is a limit to even an Indian's capacity and, once their well-developed appetites are thoroughly satisfied, the crowd settles down to drying the meat

> and sinews; extracting marrow; stretching hides for leather; and perhaps preparing pemmican for either winter use or sale at the trading post.
>
> In general, it may be said that this method of hunting the buffalo - if it can be called hunting - was resorted to but seldom. Success depended upon too many circumstances. The ground must lie correctly; timber should be available; the game has to be fairly plentiful and within easy reach. Also, some one able to guide the animals in the right direction was indispensible. Under the most favorable conditions, too, the herd often escaped. They might stampede through the confining lines of Indians. They might with their great weight and momentum crash through the encircling walls of the pound. But, when it did succeed, it was a great accomplishment. (1929:91-93)

Alanson Skinner recorded the following descriptions of buffalo pounds provided by Plains Cree informants:

> Impounding was frequently resorted to. In describing the procedure, Spotted-one and Jacob Bear chose as typical a famous pound near Moose Jaw. A long funnel-shaped entrance was made by setting up bundles of willows about fifty yards apart, and, at various places along the line snowbanks were constructed behind which the watchers lay during the drive, and observed the progress of the hunt through peepholes. This funnel ran along the top of a bluff, and suddenly turned at right angles over the edge, where there was a steep drop. Just at the angle a low embankment was built, and at the foot of the bluff a gate four feet high was constructed. This gate was at once low enough for the buffalo to spring over on their mad descent of the bluff, and too high for them to leap back in attempting to escape. Beyond this entrance was a solidly constructed circular pen built of logs to a height of seven feet or thereabouts.
>
> When it was desired to make a capture, a certain man was selected from among the few who had the ability to call the buffalo. Spotted-one, Jacob Bear, and Assiniboine, all denied that these people carried medicine or were persons endowed with dream powers, but explained that certain persons seemed to be able to call to the buffalo and get them to follow them without supernatural help.
>
> The buffalo caller would approach the herd cautiously in an oblique direction, and when he had succeeded in attracting the attention of the bison he would stop, generally about thirty or forty yards away. The caller would then cry out, "Heh!heh!heh!" and slowly retreat on a zigzag course. The buffalo would begin to follow, and the caller retired until he had reached the mouth of the funnel and the herd had entered. Here he would make his escape to one side, and the watchers behind the snowbanks would spring up and shout to stampede the herd. The bravest men were stationed at the angle, for here the buffalo were likely to overflow the banks and overwhelm the hunters. This was usually prevented by these watchers who stood up and held their blankets waist high, twitching them a few inches to right or left alternately and calling, "Ha!ha!ha!"

When the herd was run into the pound it was started milling, and this the Indians said was always a rush from east to west, or as the sun travels. These Cree had not heard of the Bûngi tradition that one buffalo escaped no matter how carefully the pound was watched. They denied that there was any central pole in the pound supporting medicine, and declared that there was no stone in the middle and no signer seated there to lure on the bison.

At the conclusion of the slaughter of the impounded buffalo, the tongues of the beasts were cut out and given to the men who had labored in the construction of the pound, and to the caller. The rest was equally distributed throughout the band.

The following information was obtained from Kenewuskwahum (Four-clouds) whose uncle, Loud-voice, was a poundmaker. Four-clouds has seen all the features mentioned. His story is quite different from that of the mere hunters, Spotted-one, Assiniboine, and Jacob Bear.

The pound was made of logs driven firmly in the ground in a circle. There was an entrance gate as described elsewhere and under it was placed a spirit rock and a buffalo skull, flanked by two crooked sticks from which were hung eagle feathers. In the centre was a pole with medicine tied on it, and at the rear were two exits for carrying off meat, and as a way of escape for persons who happened to be in the pound when the buffalo entered. Sometimes when the people were camping by a pound all winter, they found it too small for their needs, and were obliged to enlarge it by piling up the buffalo meat already dried or frozen to make new bounds. "Meat Pound," in Saskatchewan, was a well-known trap named from this custom.

When the pound was ready, the maker approached the shrine and sang songs for the buffalo. He first laid his pipe before him and smudged it with sweetgrass. Then he raised the bowl of his pipe to the level of his forehead, offering the mouthpiece to the Powers Above. Then he reversed it and turned the bowl, pointing the mouthpiece in all directions, that all the gods might smoke. All this time he prayed. Then he laid down the pipe and began to sing. There were two kinds of buffalo, i.e., the black ones that could stand up and run, symbolized by the pipestem; and the white ones, like a robe, symbolized by the pipe bowl. There was a song for each variety. The first song is: --

"Pity my children, my men, and all my camp. Give me buffalo!" The second song was merely a prayer to the Gods Above (Gitce manitu) for a general blessing.

During the first song the poundmaker held up the pipestem; during the second he raised the bowl aloft. He then laid his pipe aside, and sang a third song which was merely: "aheyeye haiye" (repeated a number of times). After this came a fourth song. The meaning of these songs was probably magical, as no satisfactory explanation was obtained.

> In the meantime a feast of meat and saskatoon or chokecherry soup, had been provided. The poundmaker caused this to be eaten, then whistled on a bone whistle and set forth with a companion. When near the herd he withdrew to a hill and waited until his companion went forward, located them and reported. Then he went to the herd and called them as before described.
>
> When the buffalo were in the pound they were not killed at once. They were first caused to mill, and the poundmaker, from a coign of vantage on the wall, puffed smoke on each individual as it went by, asking it not to hurt any of its slaughterers. When this had been done he gave the order for the killing to commence, and the shooting was done only with bows and arrows as it would have been dangerous to the other Indians if rifles were used.
>
> Sometimes the poundmaker did not leave the pen when the buffalo arrived, but stayed behind, standing at the foot of the medicine post to consecrate the buffalo with incense from his pipe as they passed. They never hurt him because of his powers; instead they often came to him and licked him. If one of the herd acted unruly, refused to mill, and turned against the tide, the poundmaker spoke to it without raising his voice requesting it to go in the proper direction, and it would obey. When impounded late in the afternoon the buffalo were not killed till the next day. They were counted and one always escaped.
>
> Joe Countois added that sometimes buffalo were called by a man who sat inside the pen instead of going out to meet them. He was usually an ordinary man without medicine power. A painted spirit stone was usually placed in the centre of the pound at the foot of the pole, and offerings of cloth were hung on it. (1914b:524-527)

Interviewing Plains Cree informants during the 1930s, David Mandelbaum obtained some very useful data on the impounding method of the Plains Cree.

> The techniques of procuring buffalo varied seasonally. In the autumn and early winter, when the herds were entering the wooded regions, the chute and pound method was used. This procedure involved stampeding a herd into a corral and yielded the richest returns in meat and hides. The Plains Cree were perhaps the most proficient of the Northern Plains people in the use of the pound.
>
> A pound had to be built under the supervision of a shaman who had been given the power to do so by a spirit helper. Each pound could only be used through one winter; the following year a new one had to be built.
>
> The shaman who directed the construction and operation of a pound, chose the site in a thicket; a circular area thirty to forty feet in diameter was cleared. The cut brush and felled logs were heaped up to make a wall ten to fifteen feet high. Loose boughs

interwoven between the standing trees, furnished a foundation for the wall. A single tree was left standing in the center. The clearing and construction were done by the men. As Maskwa recounted this he commented, "That was the only time when men really worked."

The entrance was to the east, at a place where two sturdy trees grew about twenty feet apart. A log was lashed between the two trees at a level with the top of the wall. A runway leading into the pound was built from the ground up to this log. Wherever possible, the entrance was placed on the brow of a bluff, so that the drop from the runway to the floor of the corral was by so much the greater.

The chute which guided the herds into the pound extended obliquely from each side of the entrance. For perhaps a hundred yards out, the chute was constructed either by lashing saplings across standing timber or by piling up boughs to form a fence, at the end of which bundles of brush were set up about thirty yards apart. Each bundle was four feet high and stacked to lean inward, toward the opposite side of the chute. These bundles led out for a mile or more (ten miles according to Maskwa). Between the two widening lines of the funnel, a middle row of brush bundles was placed.

The chute took a sharp turn just before the entrance to the enclosure so that the onrushing herd could not see the corral until it was too late to stop. Men were stationed at this bend and at several places along the chute. When the buffalo approached, they jumped up, waved robes, yelled, and thus stampeded the animals up the runway and into the pound.

The tipi of the "maker" of the pound was placed beside the entrance. Here the shaman sang and smoked to invoke his spirit helpers. A buffalo skull, several cloth offerings, and two feathered crooks were placed underneath the runway. When buffalo were needed, the shaman invited several young men into his tipi. He gave them berries to eat, had each one blow on an eagle bone whistle, and then made a pipe offering. At night these young men went out to find buffalo. When they located a herd they surrounded it and drove it steadily toward the opening of the chute by slapping their folded robes on the ground or on the snow. The loud report startled the animals and they would move away from the source of the noise, but on perceiving no further danger, settled down to graze again. The young men would advance a little and send the herd on further with another report.

When the animals were close to the chute, a single horseman, mounted on a fast horse, rode out to guide them into the corral. He was able to do this by operating on the principle that the herd leaders would always swing toward a rapidly approaching rider in an effort to head him off. Thus, if the buffalo were running too far to the left of the pound, the rider galloped around and approached the leading buffalos from their right. They would veer toward the horseman and, consequently, into the funnel. Once inside the chute the motion of the herd was accelerated by the violent movements of

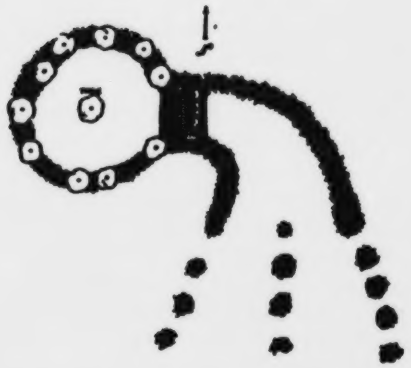
> men stationed behind the barriers. In the pound the buffalo milled around clockwise and were shot with arrows. As the buffalo milled, daring young men would jump into the pound and pluck arrows from the sides of animals. All the arrows they could retrieve belonged to them.
>
> Before the carcasses were butchered, the shaman ascended the wall of the pound and sang his power song, accompanying himself with a rattle. Then small boys undressed and climbed into the enclosure. They threw buffalo intestines over the branches of the central tree, imitating the call of crows as they did so. At the same time, little girls brought wood to the tipi of the shaman. For these functions, each girl received a piece of heart fat and each boy a buffalo tongue. The fatty tissue around the buffalo heart was peculiarly sacred. The person who cut it out of the carcass wailed as he did so.
>
> The camp crier usually apportioned the buffalo, giving the fattest carcasses to the men who had worked on the pound. Often the original pound was filled with the accumulated debris and another had to be built adjoining it. If one pound proved unsuccessful, the group about it moved to an encampment whose pound furnished an ample supply of meat. All who were encamped in the vicinity of a pound were privileged to share in its yield, regardless of whether they had helped build it or whether they belonged to the band that had constructed it. Pounds were not used for any other animals. (1979:52-55)

For Mandelbaum's diagram of a buffalo pound see Figure 5.

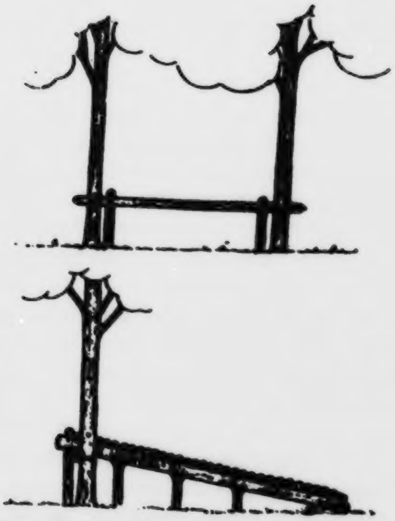
Plains Ojibway Buffalo Pounds

According to research conducted by Skinner (1914a), the Ojibway used buffalo pounds similar to those he described for the Plains Cree (1914b:524-527).

> In winter the great method of hunting was by impounding. Not every man could be a poundmaker, only those who had received supernatural power. The Bûngi practised the custom, so well known among the Central Algonkin, of sending their youths out into the bush to fast when they had reached the age of puberty. There the young man was obliged to remain in seclusion without food or drink for a period varying from two to four days, during which time he prayed and strained every nerve to obtain a vision in which he might acquire supernatural power, given him through the pity of one of the gods. Some young men at this time received the right to call the buffalo when the people were in want.
>
> When the people were starving they would approach the buffalo dreamer and ask him to aid them. Accordingly he would require them to attend an all night ceremony and assist him in making prayers and offerings to the great Powers Above for success, begging for a stormy night so that there might be banks of snow on the prairie. In the



Buffalo Pound.



Detail of Construction of Entrance to Buffalo Pound. Above, cross piece set in place; below, runway built leading up to and partially supported by cross piece.

Figure 5: Diagrams of a Plains Cree buffalo pound (Mandelbaum 1979:53).

> meantime a great enclosure was constructed after the fashion of the accompanying sketch, which was made from a native drawing furnished by Cenuwigabô, (Sound-standing).
>
> First a circular pen was made, with tunnel exits. This was the pound proper. In the center was a pole, upon which hung the dreamer's or poundmaker's medicine. At the entrance of the pound were openings or doors of upright logs for the escape of the decoy, which will be explained later. From the entrance spread away two long log wings or fences with snow banked up at intervals, on or behind which were concealed men whose duty it was to urge on the herd when driven into the chute. When everything was in readiness and the buffalo located, the dreamer went on on horseback, wrapped in his buffalo robe. He made his way to the herd, and when quite close to them he took off his robe and waved it crying, "Wu!wu!" *ad libitum*. This attracted the buffalo, who commenced to follow him, urged on, as the Indians believe, by the power of the dreamer's medicine.
>
> The decoy now began to ride slowly towards the wings of the pound shouting, swinging his robe, and traveling in a zigzag course as he went. As he approached the trap he constantly increased his pace until the buffalo had well entered the wings. Then the men hidden behind the snow banks sprang up, yelping, making a great demonstration, flourishing their robes, and discharging their firearms. The herd then stampeded, rushing headlong down the funnel, and, at the entrance to the pen, the dreamer who had decoyed them so far, then urged his horse through one of the doors. The buffalo however, carried on by the impetus of their flight, dashed into the enclosure, where the Indians who had been waiting on the wall endeavored to force the foremost to mill, while the herd surged in behind.
>
> Ogimáuwinini claimed to have seen the bison pour in in such numbers that the last ones ran over the backs of those already entrapped and escaped over the corral walls. While the buffalo were milling, the Indians swarmed on the walls of the pen and shot such of the brutes as they desired, afterwards drawing the carcasses out through the underground doors to be butchered.
>
> It is said that sometimes the buffalo were driven into the pen, but not slaughtered till the next day. In such a case they were counted the night before; on the morrow it was invariably found that one buffalo had escaped.
>
> It was a rule of the hunt to give one whole buffalo to each destitute old person and each head of a normal family. Men with large families were given more. (1914a:496-498)

Cheyenne Buffalo Pounds

Although the Cheyenne apparently used buffalo pounds at one time, no eye-witness accounts of pounds in use among the tribe exist. Grinnell, however, provided the following story related to him by White Hawk, a

Cheyenne Indian, while describing the evolution of buffalo hunting techniques:

> In later times, another man had a dream about the way to kill buffalo. His dream said to him: "You shall take your people and have them make a large pen out of wood and brush, with a gap in one side, and a chute with diverging wings running far out on the prairie, fences which shall hide the people from the buffalo. Then you shall take certain young men of the camp and go out with them on the prairie, and you can bring the buffalo into this pen."
>
> The man had the people build the pen and the wings as he had been told, and took his young men and told them what to do, and went out and led the buffalo into the pen without trouble. After that they could always go out and bring them.
>
> Before they set out to bring the buffalo, the old man told his young men to strip naked down to their moccasins, and to paint their faces, arms, legs, and bodies with red earth. The medicine man and another old man, each carrying a wing, went before the painted men singing their mysterious songs. The painted young men divided into two equal parties, and followed these two old men, behind and outside of them on either side. When the old men got near the buffalo, they beckoned to them with the wings, and soon the buffalo began to come toward them. Then the old men turned about and walked toward the chute in front of the buffalo; and on either side of them, but a long way off, walked the two parties of painted young men. The young men did not sing, but if at any time the buffalo tried to turn aside in either direction from following the old men, the young men held their hands up to the sky and waved them in a certain way, and the buffalo turned back. After the old men had led the buffalo in between the wings, the opening between the wings was filled by the two parties of painted men who had followed them out, and all sang. The young men who had been chosen to do the killing had been hidden behind the walls of the chute, and after the buffalo had passed them, they climbed over this fence and followed them, hurrying them into the pen. While they did the killing, the painted men stood there at the gap of the chute, and kept on singing until all were killed.
>
> When the buffalo that were following the two men who called them with the wings had come to the entrance to the pen, these medicine men walked a little to one side of the entrance, still singing and waving the wings toward the entrance, and the buffalo walked into the pen. Then while the painted young men walked up and formed a line in the entrance, the medicine men walked along outside of the fence, and close to it, around the pen to the back, opposite the entrance. They stood at the back of the pen and sang their mysterious songs all the time while the men were killing the buffalo, and when they were through killing, sat down on the ground and remained there till the skinning and cutting up was finished, and the meat was taken to camp.
>
> The best pieces of the meat were selected for the two men who had called the buffalo, and the painted men were then allowed to go

> into the pen and to select for themselves the next best portions. (1923, Vol.1:266-268)

Gros Ventre Buffalo Pounds

According to research conducted by Regina Flannery (1953:56-57), the traditional communal hunting methods of impounding and driving buffalo were used by the Gros Ventre until the 1830s. The following information, provided by Flannery's informants, describes the mode of impounding used by the Gros Ventre and points to the availability of the horse as the factor which led to the eventual abandonment of traditional buffalo drive methods:

> The old-fashioned methods of impounding and driving over the cliff were seemingly abandoned by the Gros Ventres in the 1830's. It was stated that an old man, who died at the age of 98 in 1920, witnessed the last big impounding at the head of the Teton River when he was twelve years old. Our oldest informant (b. 1854) knew of these methods only because her grandmother and other older people had told her stories of what they had witnessed. She put it as follows: "When my grandmother was a young woman, the Gros Ventres were very badly off. Only a person here and there would have a horse, and these horses were not the fast kind that can be used in hunting. In fact they did better by building a row of rocks to lead the buffalo into a big corral; or else by having a man covered with a buffalo robe to act as decoy. This man would run forward toward a steep precipice and just at the edge would jump aside while the buffalo following him would go over. The animals which were not crippled in the fall would be shot with bow and arrow. Everybody had to use dogs to drag their stuff as the people moved around; and they cut the lodges in two so the load would not be too heavy for a dog to draw."
>
> The possession of an adequate number of horses, then, seems to have been the key factor in the abandonment of the earlier methods of hunting buffalo. (1953:56-57)

John Audubon's account of the method of impounding buffalo used by the Gros Ventre is contained in the section on historic and ethnographic accounts of Blackfoot buffalo pounds. Mathew Cocking's account of an early buffalo pound (also under "Blackfoot Buffalo Pounds") possibly describes a Gros Ventre pound, as the tribe is thought to have inhabited the area between the two branches of the Saskatchewan River at that time.

Hidatsa Buffalo Pounds

The Hidatsa apparently also employed buffalo pounds at one time. Martha Beckmith recorded the following description of a pound built at the base of a precipice. This description is from the story "The Burning of the Earth" related to Beckmith by a Hidatsa informant in 1929:

> High-up-Eagle is the one who invented the method of butchering buffalo by means of a big drive over a claybank with a corral at the foot of the cliff so that the animals can not run away. Ten men are chosen as pickets, one head man and nine others. The two bravest sit at the edge of the bluff, the next two beside them, and so on, to wave back the herd (if they try to break away). Below the bluff is the camp. Three men drive in the herd. The leader watches the movements of the herd and signals its movements. The men watch the leader. If all the herd are coming together he opens out his arms and robe and then clasps his arms together. If buffalo are straying from the main drive he takes off his robe and waves it. When all fall in and none are left he takes off his robe and tosses it in the air to show that all are caught below and there are no stragglers. Then the ten headmen come around the edge of the cliff and stake off the pit through the middle and give one half to the western societies and one half to the eastern. (1937:91)

Buffalo Pound Summary

In summary, the Assiniboine and Plains Cree were well known for their proficiency in impounding buffalo. The Blackfoot, Sarcee, Gros Ventre, Cheyenne, Hidatsa, and, the Crow (according to Lowie [1922a:211] and McHugh [1972:62]) were known to have practiced impounding. Other tribes may also have used this method prior to the contact period. The Assiniboine, Plains Cree, Northern Blackfoot and Sarcee commonly built buffalo pounds on or at the base of a hill or on level ground while the Piegan and Blood apparently favoured the use of a natural precipice as a jump-off for their pounds. It is difficult to specify which methods were favoured by the Cheyenne and Hidatsa, due to insufficient data on the buffalo hunting methods of these tribes.

BUFFALO JUMPS

The tribes who are known to have used natural precipices in their buffalo pounds would have included utilization of higher precipices that did not require the construction of a pound at the base. Driving buffalo over cliffs, with or without a corral below was mainly practiced by the Piegan, Blood, Arapaho, Gros Ventre, Kutenai, Crow and probably by the Flathead and Coeur D'Alene, Salishan tribes of the Plateau region (Forbis 1960:65). According to Dodge (1889:291, 577) the Sioux and Pawnee also drove buffalo over precipices. The term "buffalo jump" is here used to refer to buffalo drives that employed a precipice high enough to kill or incapacitate most, if not all, of the buffalo driven over its edge, and consequently, did not require a corral at the bottom.

As stated earlier in this report (see introduction to "Communal Hunting Methods"), the buffalo pound and buffalo jump methods had much in common. Ethnographers such as George Bird Grinnell (1893:228-232), John Ewers (1955:164-165) Claude Schaeffer (1978:246-248) and Clark Wissler (1910:33-52) discussed buffalo pounds and jumps essentially as variations of the same method. Peter Fidler (1792-1793) used the term "pound" to refer to both pounds and jumps. Tom McHugh (1972:71) stated that the procedures used in buffalo jumps were identical to those used in pounds. It is thus reasonable to consider the buffalo jump as a trap differing only in degree from the type of pound involving a low cut bluff, a jump simply being high enough not to require a corral at its terminus. Historic and ethnographic accounts of buffalo jumps generally support this view; however, these accounts are few and not very detailed. For this reason, it is recommended that the "Buffalo Pound" section of this report be read prior to reading this section. There is more information on the physical and procedural features of buffalo drive methods in the Buffalo Pounds section which is useful in gaining an understanding of the buffalo jump method.

THE PHYSICAL COMPONENTS OF A BUFFALO JUMP

Buffalo jumps were located in broken country such as on steep banks of creeks and rivers, particularly in the eastern foothills of the Rocky Mountains. George Arthur (1975:72) noted that in the foothills, buffalo jump sites are found in far greater numbers than buffalo pound sites. According to Carling Malouf, "Jumps are mostly confined to the high plains, just east of the Rockies, because it is there you have the big breaks in the rocks where the rivers cut deep through the strata, and they more frequently have the additional feature of the cliffs . . . in quantity they are along the foothills of the Rockies . . . " (Malouf and Conner 1962:40; cf. Forbis 1960:67). The eighteenth century surveyor and trader Peter Fidler, while traveling and wintering with the Piegan Indians in southern Alberta, remarked, "All thro' these extensive plains, several of these steep perpendicular rocks are to be seen, which the Indians never fail to make proper use off for Killing the Buffalo" (December 5, 1792).

The foothills of southern Alberta were a popular grazing area for the buffalo in fall and winter; the valley bottoms provided shelter during harsh weather, and the Chinook winds from the west often cleared the area of snow, exposing ample vegetation for the buffalo to graze upon (Forbis 1960:66; Quigg 1978:53). Wind conditions were also a significant factor in determining the orientation of buffalo jump sites (Schaeffer 1978:243), since it was essential that the jump be downwind of the buffalo to prevent the keen scented animals from detecting the people waiting at the trap and the stench of dead carcasses from previous kills. Most of the jumps in the foothills faced east or north, probably because of the direction of the prevailing winds (Forbis 1960:243; Malouf and Conner 1962:45).

Thus, generally broken terrain provided the Indians with the first essential physical component of a buffalo jump -- the precipice. The height of the precipice could be as low as a few dozen feet, e.g., Fidler mentioned a precipice forty feet high (December 5, 1792), or well over one hundred feet (Barrett 1921b:24; Hornaday 1971:483; Lewis and Clark 1904:93). Another essential feature of a buffalo jump which was necessary in the vicinity of the precipice was a grazing area consisting of a large tract of grassland (Forbis 1960:67; Wissler 1910:34). According to Claude Scnaeffer (1978:246), the gathering area frequently included a lake at which bison were accustomed to drink. In an 1869 issue of Harper's Magazine, T. R. Davis outlined these basic elements in his brief summary of the jump technique: "A herd is discovered grazing on the table-lands. Being thoroughly acquainted with the country, the Indians are aware of the location of the nearest point where the table-land is broken abruptly by a precipice which descends a hundred or more feet" (Hornaday 1971:483).

In some cases, the gathering area was bordered by certain geographical features that limited the movements of the buffalo and encouraged them to drift in the direction of the precipice (Forbis 1960:67). For example, according to the Crow ethnographer Joe Medicine Crow (1978:252), the Crow Indians sometimes used sites that had a natural barrier, such as an escarpment, on one side of the area leading from the gathering area to the jump-off point. Wissler informants stated that coulees or depressions sometimes led to the jump-off point (1910:37).

To encourage the buffalo to run to the desired point of the precipice, the hunters built drive lines of piles of rocks, buffalo dung, or other materials (sometimes called "Dead Men") which converged from the jump-off point out onto the plain in the direction of the gathering area. Describing the buffalo jump method among the Piegan Indians, Fidler reported drive lines composed of piles of buffalo chips (December 5, 1792), as well as some composed of piles of brush (December 27, 1792). Grinnell (1893:229) mentioned lines of rock piles and brush in his description of Blackfoot drive lines. The ethnographer S.A. Barrett, who visited a drive site near Heart Butte, Montana in 1921 and interviewed Blackfoot informants on how the site would have been operated, noted drive lines of rock piles still visible at the site and included rock pile drive lines in his reconstruction of the buffalo drive method of the Blackfoot (1921b:24-25). Rock piles were also mentioned by Medicine Crow (1978:251, 252), reporting on Crow buffalo jump traditions, and by Wissler (1910:34-36) in his discussion of Blackfoot buffalo jumps. Wissler visited a site on Two Medicine River south of Browning, Montana and interviewed informants as to the essential features of the drives of the Blood and Piegan tribes, the likely users of the Two Medicine River site. According to Wissler, drive lines of rock piles were "an essential feature of the buffalo drive among the Piegan and Blood Indians" (ibid.:38). Information gathered by Claude Schaeffer (1978:245) indicated that rock piles were used in the drives of the Blackfoot tribes. Medicine Crow (1978:250) stated that the Crow also incorporated small burning piles of incense into their drive lines of rock piles. On some occasions the drive lines may have been formed of people only. Alexander Henry may have been referring to this type of drive line when he commented that the Piegan Indians "extend their ranks" from the edge of the precipice (Coues 1897:725).

The height of the piles of material used to form the drive lines of buffalo jumps was generally a few feet. Fidler reported piles of buffalo dung "about knee high" (December 5, 1792). Barrett noted "vestiges of rock piles" that originally would have been "about two feet high, just large enough to conceal a squatting man" (1921b:24-25). Schaeffer (1978:247) stated that the rock piles of Blackfoot drive lines were too low to conceal a squatting man completely. Wissler (1910:36) noted that the original height of the rock piles at the Two Medicine River site was difficult to estimate, but he concluded that those near the precipice could not have exceeded fifty centimetres in height. The rock piles of the drive lines were probably higher close to the jump-off than elsewhere in the lines (Medicine Crow 1978:252). The piles of rock, etc. were placed in the drive lines at intervals that grew increasingly larger as the lines extended away from the precipice. Wissler recorded that the drive lines at the Two Medicine River site "vary from three to seven meters, increasing as the line extends outward from the bluff" (1910:35).

The drive lines were usually described as forming a general V-shape. Grinnell stated, "From the top of the bluff, directly over the pis´kun, two long lines of rock piles and brush extended far out on the prairie, ever diverging from each other like the arms of the letter V, the opening over the pis´kun being at an angle" (1893:229). Fidler (December 5, 1792) observed that at the jump, the two sides were not more than 20 yards apart, but at the other end, the distance between the lines was one or two miles. Barrett (1921b:24-25) noted that the rock piles formed a "V-shaped drive" in Blackfoot buffalo drives. Medicine Crow stated that a "V-shaped line of stones" was a feature of one type of buffalo jump site used by the Crow; the point of the V in this type of jump could be from a few feet to several yards wide (1978:251). Wissler noted that "lines of rock piles enclosing a V-shaped space" were an essential feature of the drive sites of the Piegan and Blood Indians (1910:38).

Variations on this V-shape were also used. In some cases, instead of two converging lines there were two sets of lines, or even more than three sets of lines (Malouf and Conner 1962:49; Medicine Crow 1978:253). Carling Malouf pointed out that, in some cases, the buffalo drivers:

> . . . had a choice of several lanes built up over many years of use. If the herd is in one spot the Indians activated one lane and used it or maybe they would even make some changes in it that were deemed necessary at the moment. So in a lot of jumps you will have a regular hodge-podge of lines, all mixed up, even crisscrossing each other. (Malouf and Conner 1962:49)

Medicine Crow described a type of jump used by the Crow that he termed the "Combination Kill" (1978:253). According to Medicine Crow, this type of jump involved not only more than one set of drive lines, but also more than one jump-off point. He cited the Emigrant kill site and three sites along Grapevine Creek in Montana as examples but did not describe the sites. Blackfoot informants of Clark Wissler (1910:37) stated that many drive sites contained a middle line of rock piles, much shorter than the others. In these cases, two coulees or depressions led to the precipice, the middle line passing along the crest between them.

Barrett stated that Blackfoot buffalo drives included "two piles of stones some distance out within the lines and directly in the path of the oncoming herd. These two stations were occupied by two of the bravest and most fearless hunters" (1921b:24). Their function was apparently to give the buffalo a final fright in order to avoid hesitation on the edge of the precipice. Blackfoot informants of Claude Schaeffer (n.d.) also mentioned the use of two rock piles in the center of the drive lane, near the precipice. Grinnell (1893:234-235) described a middle line of buffalo chips used by the Blackfoot when snow was on the ground, which the buffalo apparently followed (see "The Physical Components of a Buffalo Pound" for Grinnell's description). In some cases, the hunters may have built drive lines running parallel to the edge of the precipice to keep the buffalo from jumping off at a less desirable location. At the Two Medicine River site, Wissler noted "a secondary line on the right [of the main drive lane] skirting a break in the bluff" caused by one of two flanking coulees near the jump-off point (1910:35).

The lengths of the drive lines varied. According to Barrett (1921b:24), the lines could be a mile long. Medicine Crow (1978:251) estimated that the drive lines could extend from a few yards to over two miles. Wissler reported that the lines at the Two Medicine River site were of different lengths, one extending for two miles and the other "about half that distance" (1910:35).

At the cliff edge where the drive lines began, there occurred a perpendicular drop (Barrett 1921b:24; Fidler: December 5 and December 18,1792; Grinnell 1893:234-235; Jenness 1938:14) or a long, very steep, precipitous slope down which the buffalo would tumble, breaking their necks, backs and limbs in the process. At the base of the drop, in the bottom of the coulee or valley, there was usually a stream or river (Forbis 1960:67-68). The presence of such a water source together with the fact that the valley bottom provided shelter and hid the camp from the view of the buffalo, made the valley an attractive camping area. Thus, it was near the base of the buffalo jump that the Indians usually established their camp (Fidler: December 28, 1792; Forbis 1960:67; Wissler 1910:36-37).

THE BUFFALO JUMP PROCEDURE

Rituals and Initiation of Drive Procedure

The buffalo jump method was usually preceded by pre-hunt rituals as described in a previous section of this report. Several tribes performed ceremonies designed to charm buffalo close to the trap and ensure success and safety in the hunt. Among the Blackfoot tribes, the rites prior to the operation of a buffalo pound or jump were performed by medicine men and women and usually involved songs, prayers and the ritualistic use of the iniskim, special rocks with which the power to charm buffalo was associated. These rites usually took place the evening before the hunt was to take place. It appears that no particular rituals were associated specifically with the buffalo jump method, as was the case with the impounding methods of some tribes (see "Buffalo Pounds: Rituals and Initiation of Drive Procedure"). Medicine Crow's discussion of Crow buffalo jump traditions (1978:250) contains a description of a pre-drive rite that is unique among ethnographic accounts, but he did not specify that this ritual was practiced only prior to buffalo jumps. According to Medicine Crow, early on the day of the buffalo drive, the Medicine Man would stand at the ridge of the precipice, point a pair of bison hind quarters in the direction of the drive lines, sing songs to the "Great Spirit" and present the buffalo runners with a pouch of incense. The runners would then embark up the drive lane toward the grazing area, burning incense along the lines as they went.

Accounts of buffalo jumps provide little information on who among the band members was responsible for initiating the jump procedure. Schaeffer (1978:245) stated that the buffalo runners were dispatched from the lodge where the pre-hunt ceremonies took place (and, therefore, probably by the shaman). It was customary for the Blackfoot ritualist to then remain in his or her tent during the drive (Barrett 1921a:82-84). The hunt could also be initiated and supervised by the band or tribal chief (Fidler: December 28, 1792; Schaeffer, n.d.).

Locating and Manipulating the Herd

Scouts would have been sent out from camp in search of a herd of buffalo. When a herd was sighted, the scouts would send word or signal that they had located a herd, and preparations for the hunt would take place in camp. Young men, known among the Blackfoot as *auki* (Schaeffer (1978:246) or *Awah-kee*, "buffalo chasers" (Dempsey 1957a:1), were dispatched to bring the buffalo toward the trap. One runner (Schaeffer 1978:245) or several (Fidler: December 28, 1792; Medicine Crow 1978:250; Wissler 1910:36) runners were used. In some cases, the functions of the scout and the runner may have been performed by the same man (Schaeffer 1978:246). According to Claude Schaeffer (1978:245), the Blackfoot runner was a young, unmarried man who underwent intensive training to build up endurance and speed. He enjoyed considerable respect among his people because his role was of fundamental importance to the tribe. The legends of some of the more renowned Blackfoot runners have been passed down through generations (ibid.:246; see "Buffalo Pounds: Locating and Manipulating the Herd" for an account of Red Antelope, a famous Blackfoot runner). Some, if not all, of the Blackfoot runners performed their duties dressed in an antelope or buffalo disguise (ibid.).

The runners were sent out before dawn, usually on foot, and attempted to bring the herd to the trap just after dawn (Schaeffer 1978:246-247). When the herd was a great distance from the camp the runners were sometimes gone for days. Fidler noted that the young men might sleep out for two or three nights when they were bringing in herds from more than 40 miles away (December 28, 1792).

Starting the herd moving in the desired direction was a difficult task, requiring great patience. The runners had to be careful not to frighten the keen-scented buffalo toward the wrong direction, and therefore remained downwind of the buffalo most of the time. They may have occasionally allowed the buffalo to catch their scent briefly, if it would urge the herd to move away in the desired direction (Malouf and

Conner 1962:45). Peter Fidler remarked that bringing the buffalo to the pound was a very difficult task because the men had to run so much to keep the buffalo moving in the desired direction, and at the same time, required much skill not to frighten the buffalo (December 28, 1792). Schaeffer stated that none of his Blackfoot informants could provide an entirely satisfactory account of the runners' methods of starting the herd in the desired direction. They did state, however, that the runner would go around the entire herd once or twice and then attempt to start the leader, and the balance of the herd would follow (Schaeffer 1978:246). Wissler, writing on the Blackfoot, reported that: "A drive was made by working a bunch of buffalo between the outward ends of the lines. This was done by a few young men on foot, working quietly around a bunch grazing within a few miles of the drive and causing them to drift toward the lines. This was by no means easy and the failures were many" (1910:36-37).

The runners would have moved the herd along using the same methods employed when impounding buffalo: shouting at the herd, slapping robes on the ground to startle the buffalo, lighting small fires so that they scented the smoke and moved away from it, and jumping up and startling the buffalo if they strayed from the desired path. In some cases, the runner walked or ran ahead of the herd and induced the buffalo to follow him by using a special call. This was reported for the Blackfoot by informants of Claude Schaeffer (n.d.); the Blood Indian John Cotton told Dempsey (1957a:1) that buffalo callers used an owl-like call that would make the buffalo bunch up. A Crow Indian informant of Medicine Crow reported that the runners "formed a line" behind the buffalo (1978:250). Lewis made a similar note (Lewis and Clark 1904:93). Schaeffer reported that the runner continued as follows:

> The runner, moving alongside but at a little distance from the lead animal, with the balance of the herd strung out behind, needed to closely regulate his speed and direction if the success of the drive was to be ensured. First, he had to guide his charges so that they would enter the opening of the drive lane. This may have been close at hand or at a considerable distance, depending upon how far he had sought the herd. He needed to correctly regulate their pace, so that the animals would arrive at the fall or corral sufficiently tired that the leader would be unable to turn back. Should the leader have reversed his field, the runner and the hunters who were manning the rock piles would have been in danger of being run down by

> the stampeding animals. Also the herd was to reach the drop-off after dawn, so that adequate light would be available for the climax. It was the proper calculation of these variables that dictated success and stamped the runner as a competent auaki. Now, with these factors very much in his mind, the runner continued on with the herd, as the first light or (sic) dawn appeared in the east. (1978:246-247)

As noted by Schaeffer, an important task of the runners was to ensure that the buffalo became so weary that they would not balk at the cliff edge. Thus, the dangers of a stampede were avoided.

Luring and Driving the Buffalo Through the Drive Lane

Scouts were stationed at vantage points not far from the camp to watch for the approach of the herd and runners (Fidler:December 28, 1792; Schaeffer 1978:247; Wissler 1910:37). When the herd was in sight, the scouts signaled to the people of the camp. The dogs were muzzled to prevent them from barking. According to Wissler (ibid.:38), they were also tied up. People from the camp, usually all the young and able bodied men, went out to the drive lines and stationed themselves under a disguise of blankets, buffalo robes, or branches behind the rock piles (Fidler:December 5, 1792; Grinnell 1893:229; Schaeffer 1978:247; Wissler 1910:37). According to Fidler (December 5, 1792), they would lie down on the ground behind the piles. Schaeffer reported that the rock piles merely served as interval markers since they were too low to conceal the hunter (1978:247). According to Medicine Crow, when burning incense was incorporated into the drive lines, few people were needed to man the lines. The piles of rock, etc. served "mainly as markers where the Medicine Man's incense was burned" (1978:252). Wissler reported that when a middle line of rock piles was used in the drive, creating two routes that the buffalo might take, the "men on this secondary line were directed as to which side to take by a watch posted on a near by knoll" (1910:37).

Once the herd was in the vicinity of the wide end of the drive lane, the runners either continued driving or leading the buffalo within the lines (Medicine Crow 1978:250; Schaeffer 1978:247; Wissler 1910:37), or allowed the buffalo to graze there until a man skilled in decoying approached the herd. Wissler reported that, at times, "a swift runner covered with a buffalo robe, hair side out, led the animals down the chute" (ibid.). In his journal of the Lewis and Clark expedition, Lewis noted that the Upper Missouri River Indians selected one of the fastest young men and disguised him in a buffalo robe complete with the head and horns. He then positioned himself so that the buffalo would notice him and follow (1904:93).

Grinnell (1893:229) described a similar method practiced by the Blackfoot tribes; the medicine man, dressed in a buffalo head and robe, moved about near the buffalo herd until they began to come toward him, when he began to walk toward the chute, continually increasing his speed. According to Grinnell, a man could also decoy the buffalo without a disguise "by wheeling round and round in front of the herd, appearing and disappearing" (ibid.:230). This apparently attracted the buffalo's curiosity and enticed the herd to follow him. The buffalo could also be led to the jump by a man mounted on a white horse (ibid.:232).

As the decoy led the buffalo down the drive lanes, the people stationed along the drive lines (sometimes called hazers) usually stood up and frightened the buffalo into continuing straight on, generally by shouting and waving robes (Barrett 1921b:24; Fidler: December 5, 1792; Grinnell 1893:229; Lewis and Clark 1904:93; Medicine Crow 1978:252; Wissler 1910:37). Schaeffer (1978:247), however, stated that the hazers twitched their robes only slightly, and this was sufficient to keep the animals in the lane. The number of hazers was greatest near the jump-off point because that was where the buffalo might be most inclined to turn to the side and try to escape; the danger to the participants was therefore greatest at that point (Schaeffer 1978:247; Wissler 1910:37). As the buffalo passed the hazers, many of the people fell in behind the buffalo and drove them from behind (Schaeffer 1978:247; Wissler 1910:37).

The runner or decoy leading the herd was faced with the life-or-death task of exiting from the drive lane before the buffalo plunged over the precipice. This was a much more urgent matter when a jump, rather than a pound, was employed, because in the latter case, the runner often had several options: running off to the side, exiting between two piles in a drive line, or running into the corral and climbing the fence or escaping through a special exit in the wall of the corral. When a buffalo jump was used, the decoy either exited by swerving off to the side (Schaeffer 1978:247), or by seeking shelter in a specially made hole a short distance from the jump-off point (Lewis and Clark 1904:93; Schaeffer 1978:247).

On some occasions, horses were used to drive the buffalo down the drive lane. According to Wissler, "the buffalo were sometimes worked into the lines by a few riders, then forced down into the chute by many horsemen on either flank, the lines near the brink being guarded by men on foot as usual" (1910:37). Fidler witnessed a Piegan drive by mounted men, in which a herd of buffalo was driven over a precipice by "2 men on horse back galloping after them" (December 18, 1792). According to Zenas Leonard (1959:144), Crow Indians on horseback drove the buffalo over precipices.

The drives were not always successful. The buffalo often broke away through the drive lines. Henry commented, ". . . this method sometimes proves dangerous; for if the leading buffalo, on coming to the edge of the precipice, is not entirely exhausted, she may refuse to make the leap, suddenly turn about, and break through the ranks, followed by the whole herd, carrying before them everything that offers to obstruct their progress" (Coues 1897:725). Similar remarks were made by Fidler while wintering with the Piegan (December 5, 19, 20, 21, 1792), by Leonard (1959:144), and by Schaeffer (1978:246).

Slaughtering, Butchering, Dividing the Kill, Post-Hunt Activities

Sometimes the entire herd was killed in their fall from the precipice, but even when some were not killed, they usually were injured sufficiently to make them easy prey for the hunters. In this respect, a buffalo jump involved less work for the hunters than did a buffalo pound, since in the latter, the hunters had to slaughter most of the buffalo after they had entered the pen. The few buffalo that tried to escape from the base of the jump were usually pursued on horseback. The Indians were very eager not to let any buffalo escape, because they believed that a buffalo that had once been in a pound or jump would help other buffalo avoid the trap (see Fidler:December 18, 1792).

At least initial butchering was done at the kill site, by the women and/or the men. Little is said about this activity in descriptions of buffalo jumps. As was the case when buffalo pounds were used, some portions of the buffalo were often eaten raw during butchering. Methods of butchering and meat processing will be discussed in a later section of this report. According to Schaeffer (1978:247), the Blackfoot transported choice portions of the buffalo back to camp, where a feast was held immediately after the kill. Prayers of thanks were also offered if no hunters had been injured during the hunt. Feasts generally followed communal hunts.

The Blackfoot apparently divided the kill evenly among the cooperating families of the hunt (Schaeffer 1978:247). The ethnographer Kenneth Kidd, however, was told by a Blackfoot informant that the tongues of the kill were given to the women who undertook to erect the Sun Dance lodge the next summer (1937:101). In general, after the kill had been butchered and divided among the people, the characteristic post-hunt activities were the processing of meat by the women and feasting.

HISTORIC AND ETHNOGRAPHIC ACCOUNTS OF BUFFALO JUMPS

As stated previously, many ethnographers tend to discuss buffalo jumps and pounds as variations of the same hunting method. Due to a lack of detailed data on the buffalo jump method, they tend to emphasize buffalo pounds in their discussions. However, the descriptions of buffalo drives provided by John Ewers (1968), George Bird Grinnell (1893), Clark Wissler (1910) and Blood Indian John Cotton (Dempsey 1957a), found in the section on historic and ethnographic accounts of buffalo pounds, are useful for interpreting the buffalo jump method as well as the pound method. Although the information provided by the ethnographer Claude Schaeffer (1978) can also be applied to both the pound and jump methods, it seems slightly more applicable to the buffalo jump method.

Claude Schaeffer conducted fieldwork with Blackfoot Indians during the 1940s and 1950s. His research notes and unpublished manuscripts are in the collection of the Archives of the Glenbow-Alberta Institute. He summarized his knowledge of the buffalo drives of the Blackfoot in a published article (1978:243-248), which will now be discussed.

For discussion purposes, Schaeffer divided the drive complex into two phases. The first phase is the "drive ritual" which centered around the iniskim. Prehunt rites were performed by a man and a woman, usually a husband and wife, often assisted by friends. A series of songs, and sometimes imitative dances, were performed in the ritualists' tent during the night preceding a drive. The ritual was, in part, intended to bring success and safety to the runner, who was dispatched from the ritualists' tent before dawn.

According to Schaeffer, the second phase of the Blackfoot drive complex, the drive procedures, involved the runner; a scout who watched from a hill near the jump for the approach of the runner and herd; and the hunters, who manned the rock piles in the drive lines when notified to do so. The physical components of the drive were two or more lines of spaced rock piles that converged at a point of concentration where a pound or jump was located. Other relevant aspects of Schaeffer's descriptions have been cited in previous sections of this report relating to the location and manipulation of the herd. Here follows his description of the events at the jump, beginning with the approach of the herd and runners near the trap:

> . . . the runner continued on with the herd, as the first light or (sic) dawn appeared in the east.
>
> Let us briefly examine the camp to see what preparations were being made there. A scout had by this time been sent to a hill nearby . . . to watch for the approaching herd. When the distant animals first appeared in sight, he ran back to the lodges with the news. The hunters quickly ascended to the drive lines and took their stations behind the lane markers, one in back of each rock pile. By this time, the runner and the herd were in plain sight, the former having accelerated his and the animals' pace to a quicker tempo. As the herd advanced within the entrance to the drive lane, the runner usually sought shelter by swerving aside to crouch near a hunter at a lane marker. In some cases, however, he continued on with the herd and sought shelter finally in a specially dug hole a short distance from the jump-off. In either case, his companions then took over the task of guiding the herd to its final destruction.
>
> Each hunter was crouched upon his knees behind a rock pile with his robe outstretched before him in his hands. He was thus concealed not by the rock pile, which was too low for such a purpose, but by his robe. The rock pile, therefore, merely served as an interval marker in the lines. As the herd, which had been stimulated to full gallop by its awareness of danger, passed the series of rock piles, each hunter twitched his robe only slightly, a move sufficient to confine the animals within the lane, or fairway. Despite mounting fear, the bison were still sufficiently in control of their movements

> that they were able to avoid their human persecutors. As the rear animals passed by, the hunters behind them arose and followed them directly down the fairway, shouting loudly to drive the buffalo on. As the buffalo drew nearer and nearer to the edge, the tumult increased, and all were intent to drive the herd over. This was the moment of greatest danger. If the lead animals still had the strength and energy to turn back from the brink at this moment, the entire herd could reverse its course and pelt madly into the hunters with attendant injury and death. If the runner had properly paced the buffalo, however, they were usually too exhausted to turn back and the whole herd would plunge over the cliff. . . .
>
> We now come to what might be called the anticlimax of the drive. The buffalo had been driven over the cliff (or into the corral). Some were killed and even more had been injured by the drop. Women and children, perhaps accompanied by the dogs, came running from the camp, if they had not earlier taken their stand nearby. Those animals that were not already dead were killed by bow and arrow or large stone mauls.
>
> Immediately following the killing, a "feast" was held. Choice portions such as the tongue, heart, and liver were removed from several animals, hauled back to camp on a travois, and there cooked. If none of the hunters had been injured in the drive, prayers of thanks were offered.
>
> To emphasize the communal character of the drive, it should be noted that the kill was shared. The meat was divided equally among the cooperating families of the band. (1978:243-248)

Alexander Henry's brief comments on the Piegan use of buffalo jumps typify the attitude of many early writers, who interpreted the jump method as an easy version of the buffalo pound method. Henry also emphasized the dangers involved in driving buffalo over a precipice.

> So much do these people abhor work that, to avoid the trouble of making proper pounds, they seek some precipice along the bank of the river, to which they extend their ranks and drive the buffalo headlong over it. If not killed or entirely disabled from the fall, the animals are generally so much bruised as to be easily dispatched with the bow and arrow. But this method sometimes proves dangerous; for if the leading buffalo, on coming to the edge of the precipice, is not entirely exhausted, she may refuse to make the leap, suddenly turn about, and break through the ranks, followed by the whole herd, carrying before them everything which offers to obstruct their progress. No effort of man suffices to arrest a herd in full career after the cow that leads them; and thus lives are sometimes lost, as the natives standing near the precipice, to form the ranks and see the buffalo tumble down, have no time to get out of the way. (Coues 1897:725)

Peter Fidler spent the winter of 1792-93 with the Piegan Indians in what is now southwestern Alberta, and witnessed many buffalo jumps in operation and provided more detailed descriptions of this method. Fidler was apparently familiar with buffalo pounds, and interpreted the buffalo jump as a method resorted to when "there is no woods to make another sort of Pound off" (December 17, 1792). On December 5, 1792, on route from Buckingham House to the foothills area of southern Alberta, he passed a creek valley where a buffalo jump site was located, interpreted by MacGregor (1966:68) to be in the present-day Carstairs area.

> . . . crossed a creek a little above a high steep face of rocks on the East Bank of the Creek, which the Indians uses as the purpose of a Buffalo Pound, by driving whole heards before them & breaking their legs, necks, &c. in the fall, which is perpendicular about 40 feet. Vast quantities of Bones was laying there, that had been drove before the rock. This kind of Places in the Plains are very useful for the Indians where no wood is to be had to make one off. Dry Buffalo dung is piled up about knee high & about the distance of 30 yeards from each other & at the rock the 2 sides are not more than 20 yards asunder, but they spread gradually wider all the way from the rock that at the other end the piles of Dry Buffalo dung will be 1 or 2 miles wide. The Men drives the Buffalo within this kind of fence all the way to the rock & by the great way the Buffalo makes they are at the very brink of the precipice before they are aware of the Danger & some men lay down flat on the ground near the Dead Men & rise up as the Buffalo passes them and follows them with all speed, to keep them constantly on the run. Was not that the case, the Buffalo by going along easily would forsee the danger & avoid it by turning upon one side or the other. All thro' these extensive plains, several of these steep perpendicular rocks are to be seen, which the Indians never fail to make proper use off for Killing the Buffalo. They seem to have been designed by nature for that purpose where no woods are to be seen. The direction of the creek is S.E. & N.W. (December 5, 1792)

The following day, Fidler passed another jump site, "Steep rocks here in 1 place in the Creek where they drive Buffalo before as mentioned the 5th Inst. but not quite so high & steep" (December 6, 1792). On the twelfth of December, he camped "near an old Buffalo Pound", which was probably of the corral type as it was in "a small hammock of asp & willows". By December 14, 1792, Fidler had arrived at the Spitcheyee River (Highwood River, according to MacGregor [1966:72]) where nearly 150 tents of "Muddy River" (Piegan) Indians were camped. Within a few days, "All the tents moved but 27 to two different Pounds to the Southward, to rocky precipices as there is no woods to make another sort of Pound off"

(December 16, 1792). By the next day one of the two parties were reported to have "already got 2 large heards of Buffalo drove before the steep rocks" (December 17, 1792). The following day, while travelling "Norwards" from the Spitcheyee River, Fidler and his party observed another buffalo jump. Fidler's description testifies to the efficacy of the natural precipice in slaughtering the buffalo for the Indians.

> In going along this day, we saw a small heard of Buffalo running very hard & 2 men on horse back galloping after them, which in an Instant we lost sight of the Buffalo, and as there was a few inequalities tho small in the ground we constantly imagined that we should every moment see them run over some small eminence or other & as when we saw them at first before they disappeared, they was at no great distance & running in a direct line towards us. We both prepared to meet them & have a shot. Not seeing any thing of them after staying a little time we proceeded forward and found that the Inds. had drove them before a perpendicular rock 29 of which was killed on the spot & only 3 escaped, but with legs broke, that the Inds. soon overtook & killed with arrows, as the Indians are always very anxious never to let a single Buffalo escape that has been in a Pound. The reason they assign for this is that should these that escape be at any future time be in the Band of Buffalo that they might be bringing to the Pond, by their once being caught in the Trap they would evade going into it again, for in general when ever a single one breaks out of the Dead Men, all the rest will follow. (December 18, 1792)

The fact that Fidler and his party did not themselves perceive that a trap lay ahead for the buffalo suggests the degree of deception involved in a buffalo jump method. The next day, Fidler camped at yet another buffalo jump site. His account of this site is of interest because it testifies to the fact that a failure to trap the animals was not uncommon.

> Where we encamped yesterday was at a rocky precipice in a kind of Creek, but the rock was not very high. At noon the Men brought a heard of Buffalo to the rock but they all broke out at the outer end of the Deadmen & only one single one fell over the precipice & was killed. At 3 PM the men brought another large herd, but they all broke out among the Dead Men as before. (December 19, 1792)

The following day Fidler encountered yet another drive site, where he witnessed more failures to drive the buffalo successfully. Furthermore, the animals were not always killed by the fall at this site. Fidler noted, significantly, that there were "no woods near" (December 20, 1792), thus a corral could not have been constructed at the base of the precipice, even though it apparently would have improved the trap.

> 20th Thursday - At 9 1/2 AM got underway, went S 3 1/2 miles & put up at 11 1/2 AM in another dry creek where there is a pretty steep rock. The Men brought 3 or 4 seperate herds of Buffalo towards the Precipice, but they all broke out amongst the Dead Men & got clear off, only 2 Cows fell before the Rock and was killed. However several was killed on Horseback with arrows. No woods near us . . .
>
> 21st Friday - The Men brought several herds of Buffalo towards the rock but they broke out amongst the Dead Men as yesterday except a small herd of about 30 which they drove down, but happening to fall at a low part of the rock only 7 was killed upon the spot, tho several had their legs broken, but was soon killed by the Indians on Horseback. A few of the 30 escaped unhurt . . .
>
> 22nd Saturday - . . . Light airs from the NE, in the evening, Calm clear weather. The Indians drove a herd of Buffalo down the precipice but not one was killed. (December 20, 21, 22, 1792)

Fidler did not mention the use of a decoy to entice the buffalo toward the precipice. It is possible that the buffalo were driven down the lane from the rear by mounted men, as was the case on December 18, 1792, or by men on foot, as in Fidler's description of a buffalo pound recorded on December 27, 1792, quoted in the section "Ethnographic and Historic Accounts of Buffalo Pounds" of this report.

Decoying is mentioned, however, in a description of the buffalo jump method by Captain Lewis of the Lewis and Clark expedition (1904:93-94). At the time he recorded the description in his journal, the expedition had just passed a buffalo jump site on the Missouri River, a few miles above the mouth of the Big Horn (Judith) River, but he did not refer to a specific tribe. Lewis' description of the drive method emphasizes the danger involved for the decoy, which was greater in a drive utilizing a precipice than in one using a corral on level or sloping ground. The precipice was more difficult to avoid and required more prior planning since options were limited and the man faced certain death if he did not avoid the precipice. Lewis described the use of a crevice near the edge of the precipice as a hiding place into which the runner escaped at the last minute.

> Today we passed on the Star^{d} side of the remains of a vast many mangled carcases of Buffalow which had been driven over a precipice of 120 feet by the Indians and perished; the water appeared to have washed away a part of this immense pile of slaughter and still their remained the fragments of at least a hundred carcases they created a most horrid stench. In this manner the Indians of the Missouri

> destroy vast herds of buffalo at a stroke; for this purpose one of the most active and fleet young men is selected and disguised in a robe of buffaloe skin, having also the skin of the buffaloe's head with the ears and horns fastened on his head in form of a cap, thus camparisoned he places himself at a convenient distance between a herd of buffaloe and a precipice proper for the purpose, which happens in many places on this river for miles together; the other Indians now surround the herd on the back and flanks and at a signal agreed on all shew themselves at the same time moving forwards towards the buffaloe; the disguised Indian or decoy has taken care to place himself sufficiently nigh the buffaloe to be noticed by them when they take to flight and running before them they follow him in full speede to the precipice, the cattle behind driving those in front over and seeing them go do not look or hesitate about following untill the whole are precipitated down the precipice forming one common mass of dead an[d] mangled carcases: the decoy in the mean time has taken care to secure himself in some cranney or crivice of the clift which he had previously prepared for that purpose. The part of the decoy I am informed is extreamly dangerous, if they are not very fleet runers the buffaloe tread them under foot and crush them to death, and sometimes drive them over the precipice also, where they perish in common with the buffaloe. (Lewis and Clark 1904, Vol. 2:93)

In 1921, the museologist S.A. Barrett visited a buffalo drive site near Heart Butte, Montana and interviewed Blackfoot informants regarding buffalo drive procedures. The site investigated by Barrett was on the north side of Badger Creek and, judging by the reputed height of the precipice (150 feet), it was a buffalo jump site. The site featured drive lines of rock piles arranged in a V-shape converging from the prairie to the edge of the precipice. The drive procedure outlined by Barrett was applicable to both pound and jump methods. His description is particularly interesting because it mentions two piles of stones in the middle of the drive lane, as does the account given by a Claude Schaeffer Blackfoot informant (n.d.) quoted in the "Buffalo Pound" section of this report.

> Here the bank rises in a sheer bluff about one hundred and fifty feet high and it was at this point that the Indians drove the buffalo over the brink, breaking legs, necks and backs in the fall. Such a spot netted the camp at a single drive tons of meat which was dried and made into pemmican for winter use. . . .
>
> Though there has not been a drive at this spot for over a hundred years, there still remained the vestiges of rock piles, behind which the hunters hid as the herd approached. Originally these rock piles were each about two feet high, just large enough to conceal a squatting man. They were arranged in a V shape. The lines

> were a half mile or more long, about a quarter of a mile apart at their outer or larger end and converged until, at the brink of the precipice, they were not over fifty feet apart. These dimensions were up to twice as great at certain other drive sites, but the proportions are similar in all.
>
> One or two men carefully drove or enticed the desired portion of a herd within the outer end of the V-shaped drive. Too many were likely to prove unmanageable, besides the Indians profess to have had a desire to conserve the supply. When the buffalo were well within the lines, those hiding behind the stone and brush shelters, showed themselves slightly and thus mildly alarmed the herd, gradually working it toward the precipice. The farther the buffalo went down between the converging lines, the more confused and frightened they became, for the nearer they approached the brink, the closer together stood the rock piles, each with its shouting hunter waving his robe and otherwise frightening the animals. As the herd passed each man, he followed, closing in and cutting off retreat if any of the animals attempted to turn back, which rarely happened.
>
> To add to the stampede, there were two piles of stones some distance out within the lines and directly in the path of the oncoming herd. These two stations were occupied by two of the bravest and most fearless hunters, whose duty it was to put the final touch on the confusion of the herd by waiting till the leaders approached the very brink of the precipice and then springing suddenly up and especially frighten these foremost animals which, being thus completely hemmed in on all three sides, naturally took the fatal plunge. Even had they tried at this juncture to turn back, they would have been unable to do so because of the rush of the animals behind them, which would have forced them tumbling over to their deaths below. (1921b:24-25)

Information on the Crow tradition of driving buffalo over precipices has been provided by the nineteenth century fur trader Zenas Leonard (1959:144) and the ethnographers Robert Lowie (1922a:211-212) and Joe Medicine Crow (1978:249-253). Leonard, writing on the Crow Indians of Northern Wyoming, made comments similar to those of Henry (Coues 1897:725) on the Peigan Indians.

> When they are in a country suitable, these people will destroy the buffalo by driving a herd of some hundreds to the edge of a convenient rocky precipice, when they are forced headlong down the craggy descent. This is more dangerous than the other method [the surround], as the buffalo, unless the Indians are very numerous, will sometimes rush in a solid column through their ranks knocking down the horses and tramping the riders under their feet. (1959:144)

Both Leonard and Henry (Coues 1897:725) emphasized the danger that the buffalo might turn back on the people driving them which, in Leonard's case, were mounted hunters. The use of a high precipice rather than a corral would have made the drive somewhat more dangerous if the buffalo did turn back or to the side at the last minute, since it restricted the directions in which the people could run to escape. As Henry (Coues 1897:725) pointed out, those nearest the edge would have been in the greatest danger.

Regarding the use of the buffalo jump method by the Crow, Lowie simply stated, ". . . the method was applied especially in the fall and varied according to circumstances. Where cliffs were very high, the herd was merely driven between two converging lines of men and women so as to leap down the precipice and be killed" (1922a:211). Joe Medicine Crow (1978:249-253) provided more detailed information on Crow Indian buffalo jump traditions, and outlined five types of buffalo jumps. The first of these was the "Classic Jump", the distinctive feature of which was "the V-shaped line of stones emanating out from the edge of the cliff for a distance of a few yards to over 2 mi." (1978:251). He suggested that the lines of rock piles served mainly as markers where the Medicine Man's incense was burned and not as hiding places for hazers (1978:252). His description of the use of burning incense as drive lines is unique among ethnographic and historic accounts of buffalo jumps and pounds. Incense burning was also part of an interesting pre-hunt shamanistic rite related to Medicine Crow by the informant Ten Bears.

> The night before the drive and jump, a council would be held and the participants were selected, some to drive the herd from the rear and a few to haze near the jumpoff point. Sometimes dogs were used on the drive. A Medicine Man was also asked to officiate in the undertaking. Early in the morning, this Medicine Man would stand on the edge of the upper cliff, facing up the ridge. He would take a pair of bison hind quarters and, pointing the feet along the line of stones, would sing his songs and call upon the Great Spirit to make the operation a success. After this invocation, the Medicine Man would give the two head drivers a pouch of incense. As the two head drivers and their helpers headed up the ridge along the line of stones they would stop and burn incense on the ground, repeating the process four times. When the two groups reached the top, they formed a line and started down the ridge. All of the animals along the ridge would be chased downhill, including buffalo, deer, wapiti, bighorn sheep, and even small animals. The mysterious thing about this is that the animals would come to the line where incense was burned and bolt back into the ridge area. Apparently, there was little or no deployment of hazers along the incense line except near the cliff. Here the rock piles were higher, larger, and closer together to afford some protection for the hazers. (1978:250)

The second type of jump, according to Medicine Crow, was the "Intermediate Type of Jump". This combined one man-made line of stones with a natural barrier such as an escarpment on the other side. Medicine Crow stated that this type of jump would differ from the "Classic Type" in that it involved a minimum of shamanistic activity, and the deployment of many individuals as hazers. He did not explain why these differences would have existed, however. This type of site, he observed, generally had "rather formidable piles of stones near the edge of the jump cliff so that the intrepid hazers stationed there would have some protection" (ibid.: 252). Contrary to some historic accounts of buffalo drives, Medicine Crow stated that yelping dogs would have added to the effectiveness of the hazers. The third type of jump outlined by Medicine Crow, the "Natural Jump", was a hidden cliff or bench, naturally camouflaged, so any nearby buffalo could be easily trapped or stampeded without prior planning.

The fourth type was the "Combination Kill", essentially a multi-jump site. Medicine Crow's comments here are interesting in that they demonstrate a somewhat greater flexibility sometimes available to buffalo drivers when a precipice was employed, because there could be more than one convenient jump-off point. Because no corral was necessary, the buffalo drivers had the opportunity to drive the buffalo over the cliff at one or more places, thereby being more adaptable to the tendencies of the buffalo. The buffalo may have followed one drive lane, or perhaps followed more than one simultaneously, thereby creating a multi-kill jump. According to Medicine Crow, the Emigrant Buffalo Jump and two sites on Grapevine Creek in Montana were "Combination-Kill" sites. He stated that there was a three-jump site on Grapevine Creek that "has a combination of Classic, Intermediate, and Natural Jumps. This is probably the most sophisticated bison jump anywhere" (ibid.:253). The fifth type of site named by Medicine Crow was the "Natural Kill", which was a natural hazard into which buffalo fell accidentally.

Regarding the use of buffalo jumps among the Sarcee Indians, Diamond Jenness made the following brief comments:

> On the present-day Sarcee reserve near Calgary is a narrow, 40-foot deep gulch with precipitous sides, one side indeed so precipitous as to be almost perpendicular. A man approaching it on

> horseback receives no warning of its presence, even in broad daylight, until he has almost ridden over the edge. This was only one of several places where the Sarcee united to surround the buffalo and stampede them over the cliffs, thereby destroying a whole herd within a few minutes. (1938:14)

Thus, the Sarcee apparently used buffalo jumps, but no detailed information on their use of this method exists. The same can be said of the Kutenai Indians; the only reference to the use of jumps by this tribe, who often crossed the mountains into Piegan territory to hunt buffalo, is found in the journals of Alexander Henry (Coues 1897:690-691). In 1811, Henry camped at a place on the North Saskatchewan River that he called "Kootenay Parc". This was apparently a buffalo jump site formerly used by the Kutenai Indians.

> Kootenay Parc, on the N. side of the river, is nothing more than a narrow slope of soil, covered with some small wood and grass, running obliquely up the acclivity of the mountain for about one-fourth of a mile, where it ends at a precipice. Over this the Kootenays used to drive animals, after enticing them upon this narrow strip of soil. The place appears perfectly well adapted for this purpose; for no animal could avoid being killed by the fall, or at least so maimed as to prevent escape. (Coues 1897:690-691)

In addition to those communal drives using buffalo jumps which were pre-planned and would have involved pre-hunt shamanistic rituals, the Plains Indians would also have used buffalo jumps spontaneously when a herd of buffalo was found grazing in a location in which they could be easily spooked and stampeded over an embankment. Joe Medicine Crow, who called these "Natural Jumps", stated that these sites usually consisted of "deceptive trails that lead either to hidden cliffs or to a high-walled, peninsula-like bench or point on which a herd or a few grazing bison could be trapped quickly" (1978:252). These jumps could be executed by a few men, either on foot or on horseback. Such hunts were not in a class with communal buffalo jump drives, however, which were much more formal events involving ceremonies and many more people.

Buffalo Jump Summary

In summary, detailed ethnographic and historic information on the use of buffalo jumps by the Plains Indians is scarce. The accounts which do exist suggest that driving buffalo over a high precipice essentially involved the same features as did drives associated with pounds, with two exceptions: (1) the lack of a corral into which the buffalo were herded, and (2) the limited amount of slaughtering required of the hunters. However, the use of a high precipice, although less laborious, presented more risk to those involved in the hunt than did a drive involving a pound.

THE ABANDONMENT OF THE BUFFALO POUND AND JUMP METHOD

According to Ewers (1955:165), the only tribes of the northern Plains which made extensive use of buffalo drives after 1850 were the horse-poor Assiniboine and Plains Cree. Exactly when this practice ceased completely is unknown. Ewers, however, recorded an account of what appears to be the last known executed buffalo pound or jump among the Blackfoot Indians, in approximately 1874 (1968:166-167). Old Weasel Tail, a Blood Indian, described this event for Ewers (see "Ethnographic and Historic Accounts of Buffalo Pounds"). The story of the destruction of the last Piegan pis´kun was apparently known to many of Ewers' elderly informants; the following account was related by Lazy Boy (born about 1855; died 1948) in 1943:

> This happened when I was a baby. My father told me about it, and I have heard the story many times since from the old people.
>
> The Piegan band called Never Laughs was camped on the Teton River a few miles north of the present town of Choteau. Their chief announced, "Now we are going to make a buffalo fall." They built a corral below the cliff and piled rocks in a great V shape on the slope above the fall. They chose the man who was to lead the buffalo to the fall. But each time he lured them in between the lines of rocks they broke away before they reached the cliff edge. After this had happened three times, young Many Tail Feathers became angry. That night he made a fire and burned the corral.
>
> The same night a war party started from camp. Many Tail Feathers followed it. When he caught up with the war party the leader told him, "You go back home. Everybody is against you because you burned the corral."
>
> Many Tail Feathers returned to the Teton River, to Harm Hill. He slept on top of it that night seeking a vision, but no dream came to him. A second night he slept there. In his dream he saw two young boys coming toward him. They asked him, "Are you the man who saved all the women and children?" He answered, "Yes." As the two boys walked away he saw them turn into buffalo. On the third night

> he saw in his dream a group of people, men, women, and children, dancing toward him. Their leader wore a handsome red war bonnet. When he came near, the leader asked, "Are you the man who saved all the buffalo by tearing up the corral?" Many Tail Feathers replied, "Yes." Then the leader said, "We are the buffalo. For saving all our men, women and children we thank you. I give you my bonnet - the red war bonnet." The group turned away. Before they disappeared they turned into buffalo. Two scabby bulls, running behind the rest, turned back and gave Many Tail Feathers their power too.
>
> After Many Tail Feathers returned to camp he set about collecting material to make up the bonnet he had been given in his dream. Every bird gave him one of his feathers to put on the bonnet. It was a straight-up bonnet, decorated with weasel hides, red flannel and brass tacks as well as feathers. It looked so pretty all the men wanted it. But Many Tail Feathers kept it for his own. He wore it to war many times before he tranferred it to another man. (1968:164-165)

Ewers estimated that this event took place in the early 1850s.

An elderly Blood Indian, John Cotton, reported to Hugh Dempsey that the last buffalo jump used by the Blood Indians was executed in the year before the smallpox epidemic of 1869-70. Cotton stated:

> This piskun was made by Peenaquim, or Seen From Afar, the great chief of the tribe. It was located north of Pincher Creek on the Oldman River. In the following year, Seen From Afar was one of the first to die in the big epidemic. This happened before I was born, but my mother and my relatives told me about it. (Dempsey 1957:1)

Jumps and pounds may have been used as late as 1870, as reported; however, buffalo drives were probably uncommon for years before their last recorded employment (Ewers 1955:165).

OTHER METHODS OF COMMUNAL BUFFALO HUNTING

THE SURROUND

The communal hunting method known as "the surround" was executed by a group of people on foot and/or on horseback by stealthily forming a circle around a herd, closing in upon it, causing the buffalo to mill around inside the gradually contracting circle; as the Indians advanced, they shot the animals, usually with bows and arrows. The surround on foot is considered to have been a method commonly practiced by the Plains tribes during the pre-horse period (Ewers 1958:11; Grinnell 1893:234;

McHugh 1972:61-62). When horses became available in large numbers, the surround method was adapted to be executed by mounted hunters and, consequently, became a quicker, more efficient method of hunting. In the early historic period, the mounted surround was commonly used by the Hidatsa, Mandans, Arikara, Pawnee, Arapaho, Omaha, Cheyenne, and the southern tribes generally (Wissler 1910:50). Eventually, all of the Plains tribes came to use this method in summer, and it became almost the exclusive method utilized by the Southern Plains tribes (Wissler 1974:23).

The surround involved many people working together under the strict direction of skillful leaders (the "Soldiers" described in the section "Enforcement of Hunt Restrictions"), who conducted the hunt in an essentially military fashion. The number of people involved was usually hundreds, according to Allen (1876:207); Leonard mentioned "several hundred" (1959:144); and Denig stated that 80 to 100 people could kill 100 to 500 buffalo (1930:531). The hazers could have included not only male hunters, but also women (Denig 1930:531; Ewers 1958:11), and probably even children and old people at times.

The earliest known recorded description of a surround is found in The Kelsey Papers. In 1691, Henry Kelsey, the first European known to have encountered the Indians of the Northern Plains, observed a surround performed by an unspecified tribe of Indians (probably Assiniboine or Cree).

> This Instant ye Indians going a hunting Kill'd/great store of Buffillo Now ye manner of their hunting/these Beast on ye Barren ground is when they see a great/parcel of them together they surround them wth men wch done/they gather themselves into a smaller Compass Keeping/ye Beast still in ye middle & so shooting ym till they/break out at some place or other & so gett away from/ym. (1929:13)

According to John Ewers, "Blackfoot traditions refer to the surround as the favorite method of hunting buffalo in the summer season in dog days. Probably they employed the same method as that observed . . . by Henry Kelsey . . . "(1958:11). George Bird Grinnell provided the following general description of the surround method as it would have been practiced on foot by the Blackfoot tribes:

> The Indians would steal out on foot, and, on a day when there was no wind, would stealthily surround the herd. Then they would startle the buffalo, and yet would keep them from breaking through the

> circle. The buffalo would "mill" around until exhausted, and at length, when worn out, would be shot down by the Indians. (1893:234)

As Grinnell specified above, wind conditions were primary factors to be considered when hunting by surround, particularly when on foot, since it required a considerable amount of time to surround the herd. On a still day, the animals would have been less likely to scent the hunters before they had managed to encircle the herd. Edwin Denig noted, "The animal is not quick sighted but very keen scented, and a man can, in passing across the wind blowing toward them, raise a herd at a distance of 2 or 3 miles, without their seeing him" (1930:531). Grinnell stated that the hunters "formed a big circle as far as possible from the buffalo" (1923, Vol. 1:265). Catlin noted that the hunters "drew themselves gradually around the herd at a mile or more distance from them" (1841, Vol. 1:199). The time it took to encircle a herd on foot could therefore have provided ample opportunity for the buffalo to scent the hunters and flee. When there was a breeze, and the Indians wished to surround a herd, they compensated for the wind condition by planning the trap so that its windward side took shape last (Dodge 1882:289; McHugh 1972:61-62). When the buffalo scented the hunters on the windward end of the surround, they fled in the opposite direction, but were met by the other sides of the "human corral" of hunters waving robes and yelling. This caused the buffalo to turn back again, and eventually they were running about in a circle within the surround. This process is illustrated by the following description recounted to Grinnell by the Cheyenne Indian, White Hawk:

> Men were always out from the camp looking for food. When any of these men found a herd of buffalo, twenty or thirty or forty, he returned to the camp and reported to the chief. Then all who had bows and arrows made ready, and went with these men to near where the buffalo were, and there formed a big circle as far as possible from the buffalo, but entirely surrounding them. The side of the circle to the leeward of the buffalo, and the other sides across the wind were formed first. The windward side was formed last. Then the men began to close in on the buffalo, until, as the circle grew smaller, the hunters were closer together. When the buffalo began to smell the people, they ran away; but those toward whom they ran would yell and toss their robes, and the buffalo turned, looking for another place, and from being always turned back they were soon running in a circle. When the hunters got pretty close, all the most active young men - those who had strong arms to pull the bow, and who could shoot

> straightest - ran in close to the buffalo and began shooting their arrows at them while the buffalo were running round in a circle, not trying to break through the line of the people. The old men say that in this way they sometimes killed a whole herd none of them breaking out. At times a few would break out and get away, but often all were killed. (1923, Vol. 1:265-266)

As noted in the above description, the surround on foot was not flawless; buffalo did escape. According to McHugh (1972:62), frantic buffalo would sometimes succeed in escaping through even the tightest line of footmen, sometimes drawing the rest of the herd after them.

The fur trader Edwin Thompson Denig provided an excellent description of a method of surrounding practiced by the Assiniboine during the mid-nineteenth century. Because the Assiniboine were relatively poor in horses, they employed both mounted men and people on foot in making a surround.

> Where a large camp is stationed they usually hunt by "surround," which is as follows: . . .
>
> At daybreak all the horses are caught and saddled, and each of the horsemen is provided with a bow and a quiver of arrows. A number who have no horses arm themselves with guns, and at a signal from one of the soldiers the party moves off in single file or line. Those who have the fastest horses go in front . . . Then the foot hunters, and lastly the women . . .
>
> Their march is conducted in silence, with the wind in their faces, consequently blowing the scent away from the buffalo while they are coming near them. The animal is not quick sighted but very keen scented, and a man can, in passing across the wind blowing toward them, raise a herd at the distance of 2 or 3 miles, without their seeing him.
>
> The party proceeds in this order, taking every advantage of concealment in the country affords in hills, coulees, bushes, long grass, etc., endeavoring to get around them. As soon, however, as they are close and see a movement among the buffalo intimating flight, they push their horses at full speed, and riding entirely round commence shooting the buffalo, which run in the direction of the footmen, these in their turn shoot, and the animals are driven back toward the horses. In this way they are kept running nearly in a circle until very tired, and the greater part are killed. Those on horseback shoot arrows into all they can at the distance of from 2 to 6 paces, and the footmen load and fire as often as the animals come near them.
>
> A "surround" party of 80 to 100 persons will in this way kill from 100 to 500 buffalo in the course of an hour. (1930:530-531)

As noted above by Denig, the hunters took advantage of the natural terrain to conceal themselves while attempting to surround a herd. In the following passage describing the mounted surround, Colonel Richard Dodge stated that the surround was only feasible when such advantageous geographical features were present. He also made the interesting observation that when a number of herds were found grazing in an area, the Indians were careful to execute the surround of one of the herds so as not to scare off the others.

> . . . the favorite and most successful mode of killing large numbers is by "the surround," and this is only practicable when hills and hollows, breaks and ravines render the approach to the herd easy, and prevent other herds from seeing or hearing the commotion and noise attendant upon its destruction.
>
> All being ready the best hunters are out long before the dawn of day. If several herds of buffalo are discovered, that one is selected for slaughter whose position is such that the preliminary manoevres of the surround and the shouts and shots of the conflict are least likely to disturb the others. A narrow valley, with many lateral ravines, is very favorable. If the herd is on a hill, or otherwise unfavorably situated, the hunters may wait for it to go to water, or by discreet appearances at intervals, drive it to the best spot. During all this time the whole masculine portion of the band capable of doing execution in the coming slaughter is congregated on horseback, in some adjacent ravine, out of sight of the buffalo silent and trembling with suppressed excitement. The herd being in proper position, the leading hunters tell off the men, and send them under temporary captains to designated positions. Keeping carefully concealed, these parties pour down the valley to leeward, and spread gradually on each flank of the wind, until the herd is surrounded, except on the windward side. Seeing that every man is in his proper place, and all ready, the head hunter rapidly swings in a party to close the gap, gives the signal, and, with a yell that would almost wake the dead, the whole line dashes and closes on the game. The buffalo make desperate rushes, which are met in every direction by shouts and shots and circling horsemen, until, utterly bewildered, they almost stand still to await their fate. In a few moments the slaughter is complete. A few may have broken through the cordon and escaped. These are not pursued if other herds are in the vicinity. (1882:288-289)

Colonel Dodge did not witness a surround himself. His description was based on information provided by "white men and Indians who have assisted in many" (ibid.:289), and apparently applies to the Plains Indians in general.

An account of the surround as practiced by the Crow Indians during the nineteenth century was recorded by trader Zenas Leonard. Leonard's account illustrates the organizational aspects of the surround method.

> When the day arrives the village is alive betimes in the morning, and several hundred will sometimes mount their race-horses, repair to a certain designated section of country, which they are to surround. When the men have all had time to get to their allotted stations, they begin to close in, driving the game, principally buffalo, into a circle, and when they are pretty well confined in the circle they commence killing them - until which time no man dare attempt to take any of the game. In this manner they have sometimes caught several hundred buffalo, besides many other animals, at a single surround. (1959:142-144)

A similar, brief description of the surround of the Plains Indians was recorded by Allen (1876:207-208).

The most detailed and vivid account of a surround is that of the artist George Catlin, who witnessed a surround by the Hidatsa of the Upper Missouri River area. Catlin is known for his rather dramatic, if not exaggerated, style.

> The plan of attack, which in this country is familiarly called a "surround", was explicitly agreed upon, and the hunters who were all mounted on their "buffalo horses" and armed with bows and arrows or long lances, divided into two columns, taking opposite directions, and drew themselves gradually around the herd at a mile or more distance from them; thus forming a circle of horsemen at equal distances apart, who gradually closed in upon them with a moderate pace, at a signal given. The unsuspecting herd at length "got the wind" of the approaching enemy and fled in a mass - in the greatest confusion. To the point where they were aiming to cross the line, the horsemen were seen at full speed, gathering and forming in a column, brandishing their weapons and yelling in the most frightful manner, by which means they turned the black and rushing mass which moved off in an opposite direction where they were again met and foiled in a similar manner, and wheeled back in utter confusion; by which time the horsemen had closed in from all directions, forming a continuous line around them, whilst the poor affrighted animals were eddying about in a crowded and confused mass, hooking and climbing upon each other; when the work of death commenced. I had rode up in the rear and occupied an elevated position at a few rods distance, from which I could (like the general of a battle field) survey from my horse's back, the nature and the progress of the grand mêleé; but (unlike him) without the power of issuing a command or in any way directing its issue.
>
> In this grand turmoil, a cloud of dust was soon raised, which in parts obscured the throng where the hunters were galloping their horses around and driving the whizzing arrows or their long lances to

> the hearts of these noble animals; which in so many instances, becoming infuriated with deadly wounds in their sides, erected their shaggy manes over their blood-shot eyes and furiously plunged forwards at the sides of their assailants' horses, sometimes goring them to death at a lunge, and putting their dismounted riders to flight for their lives; sometimes their dense crowd was opened, and the blinded horsemen, too intent on their prey amidst the cloud of dust, were hemmed and wedged in amidst the crowding beasts, over whose backs they were obliged to leap for security, leaving their horses to the fate that might await them in the results of this wild and desperate war. Many were the bulls that turned upon their assailants and met them with desperate resistance; and many were the warriors who were dismounted, and saved themselves by the superior muscles of their legs; some who were closely pursued by the bulls, wheeled suddenly around and snatching the part of a buffalo robe from around their waists, threw it over the horns and the eyes of the infuriated beast, and darting by its side drove the arrow or the lance to its heart. Others suddenly dashed off upon the prairies by the side of the affrighted animals which had escaped from the throng, and closely escorting them for a few rods, brought down their hearts blood in streams, and their huge carcasses upon the green and enamelled turf.
>
> In this way the grand hunt soon resolved itself into a desperate battle: and in the space of fifteen minutes, resulted in the total destruction of the whole herd, which in all their strength and fury were doomed, like every beast and living thing else, to fall before the destroying hands of mighty man.
>
> I had sat in trembling silence upon my horse, and witnessed this extraordinary scene, which allowed not one of these animals to escape out of my sight. Many plunged off upon the prairie for a distance, but were overtaken and killed; and although I could not distinctly estimate the number that were slain, yet I am sure that some hundreds of these noble animals fell in this grand mêlée.
>
> The scene after the battle was over was novel and curious in the extreme; the hunters were moving about amongst the dead and dying animals, leading their horses by their halters, and claiming their victims by their private marks upon their arrows, which they were drawing from the wounds in the animals' sides. (1841; Vol. 1:199-201)

As illustrated by Catlin's account, the mode of killing the buffalo was usually by bow and arrow (cf. Denig 1930:531; Grinnell 1923, Vol. 1:266). Each hunter apparently marked his arrows so as to identify them after the slaughter, and thereby claim the animals belonging to him. Grinnell (1893:200) reported that Blackfoot hunters marked their arrows by painting them, or by decorating them with some special combination of colored feathers. However, the Indians had another practical reason for using the bow and arrow. Until the Winchester Repeater Rifle became widely available, the rifles possessed by the Indians would not have been suitable for the surround method (Grinnell 1893:235). As indicated in Catlin's description above, the mounted hunters rode back and forth along the designated circle to tightly fill whatever space the buffalo were headed toward. Under such circumstances, the process of continually having to reload a musket would have been too awkward and taken too much time. An arrow, however, could be pulled from a quiver and dispatched within a few seconds.

The mounted surround method of hunting buffalo was generally a very efficient method. It relied on no man-made artifice such as a corral or drive lines, and therefore allowed the Plains Indians greater flexibility in hunting the buffalo. The Indians were better able to conduct the hunt wherever the buffalo were located, rather than having to lure the buffalo to the location of a specific trap. In addition, they were able to complete the hunt, according to Catlin (above), in as little as fifteen minutes.

THE CHASE ON HORSEBACK

The commual chase on horseback developed as a direct result of the availability of the horse on the Plains. Rather than driving the buffalo over a cliff or entrapping them in a pound or a circle of hunters, the communal chase involved an organized military-type charge on a herd of buffalo. Success in this method depended upon the availability of very swift horses who could be trained to perform the tasks required of a "buffalo horse". It also depended upon the well honed skills of several individual hunters.

Before horses were numerous among the Plains tribes, buffalo were hunted on horseback by one or a few hunters. According to Arthur (1975:67-68), "running buffalo" was universal among the Plains tribes. After the Indians had become wealthy enough in swift horses to be able to execute a communal chase successfully, the Blackfoot tribes apparently abandoned the surround in favour of the chase (Ewers 1958:76-77). Ewers (ibid.:77) suggested that the decline in the use of the surround may have been plainswide after 1850.

The communal chase involved preparations similar to those employed prior to a surround. A meeting of the chief (or chiefs) and councillors was held to discuss the plan of the hunt, and hunting restrictions were enforced under the supervision of the soldiers (Ewers 1955:155). Immediately prior to the hunt, the people of the camp prepared themselves by saddling the horses (although some hunters preferred to ride bareback) and outfitting the pack animals with travois. These duties generally fell to the women of the camp. Ewers described these preparations, as performed by Blackfoot women, in the following account:

> Before a hunt the owner's wife prepared his horse for him. Unless he preferred to ride bareback, she placed a light, hair-stuffed pad saddle on its back and carefully adjusted its girth. Many hunters preferred to use a pad saddle because it added little weight, yet provided a firm seat and bracing for their feet in the stirrups, permitting a steadier aim than was possible from a barebacked horse. (1958:78)

The hunters usually left the camp riding a common pack horse and leading their buffalo runners behind them (Audubon 1960, Vol. 2:144; Boller 1959:230; Ewers 1958:78; Flannery 1953:55; Mandelbaum 1979:56; McDougall 1971:63; Skinner 1914a:494). This conserved the energy of the buffalo runner for the strenuous chase. In the following passage, Ewers described the importance of the buffalo horse, the qualities required of a good buffalo runner and the training of the horse by the Blackfoot hunter:

> Great care was taken by the Blackfoot in selecting and training a buffalo hunting horse. This animal was the man's primary charger, ridden only in hunting, to war, and on dress occasions. Informants named five qualities sought in a buffalo runner: (1) enduring speed (the ability to retain speed over a distance of several miles); (2) intelligence (the ability to respond instantly to commands or to act properly on its own initiative); (3) agility (ability to move quickly alongside a buffalo, to avoid contact with the larger animal, and to keep clear of its horns); (4) sure-footedness (ability to run swiftly over uneven ground without stumbling); and (5) courage (lack of fear of buffalo). Usually a man selected the horse he wished to train as a buffalo hunter on the basis of its demonstrated swiftness and alertness. A 4-year-old was preferred, but a man who owned few horses might select a horse a year younger. The horse's courage could be determined only through experience in chasing buffalo. Some horses never overcame their fear of those large, shaggy beasts, and could not be trained as hunters. It took patient practice and use of the whip to train a horse to run close beside a buffalo. The courageous horse, through experience, learned to follow the buffalo,

> move in close and "do its work" with little urging from its owner, so that the latter could concentrate upon making his kill. A well-trained buffalo horse would turn as the rider shifted his weight to one side, or in response to pressure from the rider's knee. Most buffalo runners were males, although some mares made good hunting horses.
>
> Many Blackfoot men regarded their buffalo horses as priceless possessions. They would not trade them or give them away. In trade a buffalo runner of known ability would bring several common riding horses or transport animals. Only a race horse of tested speed would have greater value than a well-trained buffalo horse.
>
> Buffalo runners of the Blackfoot were given special care. Three Calf recalled that his father, who owned several buffalo horses, would not permit boys to catch, ride, or play with any of them. After a chase a buffalo horse was taken to a stream, water was thrown on it, and it was rubbed down. Some men made a practice of throwing water on their buffalo horses every morning and evening to toughen them and prepare them for hard winters. Before setting out on a chase the hunter's wife carefully prepared his mount for him. She met him on his return, took his horse from him and cared for it. (1955:153-154)

Accompanied by women, and sometimes also children, to assist in butchering, the hunters approached the location of the herd that had been designated by scouts from the camp. The method of approaching during the communal chase was similar to that employed during the surround method; that is, the hunting party approached from downwind and concealed themselves as much as possible behind natural features of the terrain (Boller 1959:230; Ewers 1955:157; Ewers 1958:79; Hornaday 1971:471). When they were in close vicinity of the herd, the hunters mounted their buffalo horses. They then began a slow, cautious approach toward the buffalo in a formation that was strictly regulated by the hunters leading the party, either in a straight line (Ewers 1955:157; Ewers 1958:79; Hornaday 1971:471; Mandelbaum 1979:56; McDougall 1971:64) or a crescent-shaped line (Boller 1954:231; Dodge 1882:291). According to Ewers (1955:157; 1958:79), Blackfoot hunters sometimes divided into two groups, some of the men riding to the left of the herd and others to the right. Upon a signal from the leader of the hunting party, the hunters charged into the herd, singled out individual buffalo, rode up alongside the animals, and shot them, usually with bows and arrows, and lances. The buffalo quickly bolted away from the hunters, who pursued them until a sufficient number of buffalo had been slaughtered.

The act of pursuing and firing upon the buffalo required great skill and fearlessness of both hunter and horse. As noted above by Ewers, a well trained horse adjusted his movements according to the shifts in pressure exerted by the hunter's legs (cf. Skinner 1914a:494). A long bridle rope was attached to the horse but was usually only used if the hunter fell from his horse; on such occasions he could grab the free end of the rope as it dragged along the ground and retrieve his horse (Boller 1959:230; Ewers 1955:80; Skinner 1914a:494). The hunter brought his horse close to the buffalo and fired at a specific spot at the back of the foreleg. In drawing so close to the buffalo and mingling with the panic-stricken herd, the horse and rider risked being gored or trampled. The situation demanded much self possession and accuracy in movement and marksmanship under chaotic circumstances. The nineteenth century zoologist William T. Hornaday described these events as follows:

> Whenever the hunters discovered a herd of buffalo, they usually got to leeward of it and quietly rode forward in a body, or stretched out in a regular skirmish line, behind the shelter of a knoll, perhaps, until they had approached the herd as closely as could be done without alarming it. Usually the unsuspecting animals, with a confidence due more to their great numbers than anything else, would allow a party of horsemen to approach within from 200 to 400 yards of their flankers and then they would start off on a slow trot. The hunters then put spurs to their horses and dashed forward to overtake the herd as quickly as possible. Once up with it, each hunter chooses the best animal within his reach, chases him until his flying steed carries him close alongside, and then the arrow or the bullet is sent into his vitals. The fatal spot is from 12 to 18 inches in circumference, and lies immediately back of the foreleg, with its lowest point on a line with the elbow. (1971:471)

Ewers provided the following more detailed description:

> Quickly they mounted their buffalo runners. Their leader lined the hunters up to give them an equal chance. At a signal from him they whipped their horses into a run. Each hunter was eager to be the first to make a kill. Sometimes they approached the game in two groups. The righthanded bowmen rode along the right side of the herd and the lefthanded bowmen and the lancers rode on the left.
>
> No time was lost once the buffalo became aware of the approaching hunters and started to run in the opposite direction. Healthy cows could run faster than bulls. In a small running herd the cows generally took the lead, followed by the bulls, which, in turn, were trailed by the calves. Except in the early summer when the bulls were prime, Blackfoot hunters who were confident of the speed of their mounts by-passed the running bulls to get to the choice cows. The righthanded bowman approached the buffalo he had

> singled out for slaughter from its right side, brought his horse close, fitted an arrow to his bow and aimed at the vital spot immediately behind the foreleg. He shot his arrow without sighting, generally with his bow held a little off vertical, the top tilted to his right. However, each hunter used the bow position and arrow release easiest for him.
>
> As the arrow left the bow the trained buffalo horse swerved away from its quarry, running in close again to allow the rider another shot if it was needed to bring down the buffalo. Then the hunter quickly drew another arrow from the quiver opening behind his left shoulder, fitted it to his bow, and shot again. Usually more than one arrow was needed to fell a buffalo.
>
> On the run the hunter carried the long end of his bridlerope coiled and tucked closely under his belt. If he should be thrown but not badly hurt or shaken up, he could grab the free end of this long line as it paid out on the ground and retrieve his horse, perhaps in time to remount and continue the chase.
>
> Usually the chase lasted until the running herd outdistanced the pursuing hunters. Four or five buffalo cows was about the greatest number a good bowman riding a fine horse could dispatch on a single chase. Most hunters rarely killed more than two buffalo. A man riding an inferior horse had to be satisfied with killing the slower-running bulls. (1958:79-80)

Peter Fidler recorded a rare eye-witness account of the Piegan hunters' skill in the chase.

> Men killed several Cows by running them upon Horseback & shooting them with arrows. They are so expert at this business that they will ride along side of the Cow they mean to kill & while at full gallop will shoot an arrow into her heart & kill her upon the spot. Sometimes when they happen to miss their proper aim (which is very seldom) they will ride close up to the Buffalo which at full gallop & draw the arrow out & again shoot with it. Some of the men will shoot the arrow quite thro' a Bull & fall down on the other side, but this is when the Arrow happens to miss the rib bones. (December 25, 1792)

John Audubon recorded the method of communal hunting on horseback observed among the Mandan Indians of the Upper Missouri River area.

> I will give you the manner persued by the Mandans. Twenty to fifty men start, as the occasion suits, each provided with two horses, one of which is a pack-horse, the other fit for the chase. They have quivers with from twenty to fifty arrows, according to the wealth of the hunter. They ride the pack horse bareback, and travel on, till they see the game, when they leave the pack-horse, and leap on the hunter, and start at full speed and soon find themselves amid the Buffaloes, on the flanks of the herd, and on both sides. When within a few yards the arrow is sent, they shoot at a buffalo

> somewhat ahead of them, and send the arrow in an oblique manner, so as to pass through the lights. If the blood rushes out of the nose and mouth the animal is fatally wounded, and they shoot at it no more; if not, a second and perhaps a third arrow, is sent before this happens. The Buffaloes on starting carry the tail close in between their legs, but when wounded they switch it about, especially if they wish to fight, and then the hunter's horse shies off and lets the mad animal breathe awile. If shot through the heart, they occasionally fall dead on the instant; sometimes if not hit in the right place, a dozen arrows will not stop them. When wounded and mad they turn suddenly round upon the hunter, and rush him in such a quick and furious manner that if horse and rider are not both on the alert, the former is overtaken, hooked and overthrown, the hunter pitched off, trampled and gored to death. Although the Buffalo is such a large animal and to all appearance a clumsy one, it can turn with the quickness of thought, and when once enraged, will rarely give up the chase until avenged for the wound it has received. If, however, the hunter is expert, and the horse fleet, they outrun the bull, and it returns to the herd. Usually the greater number of the gang is killed, but it very rarely happens that some of them do not escape. (1960, Vol. 2:143)

As emphasized above by Audubon, the chase on horseback presented serious dangers to the horse and rider. According to Hornaday:

> It often happened that the hunter found himself surrounded by the flying herd, and in a cloud of dust, so that neither man nor horse could see the ground before them. Under such circumstances fatal accidents to both men and horses were numerous. It was not an uncommon thing for half-breeds to shoot each other in the excitement of the chase; and, while now and then a wounded bull suddenly turned upon his pursuer and overthrew him, the greatest number of casualties were from falls. (1971:471)

A serious danger presented to the hunter and his horse was the unpredictable nature of the terrain on which they chased the herd. Colonel Dodge noted: "neither man nor horse can see the ground, which may be rough and broken or perforated with prairie dog or gopher holes. This danger is so imminent that a man who runs into a herd of buffalo may be said to take his life in his hand" (1959:127). Regarding hunting accidents among the Blackfoot tribes, Ewers made the following comments:

> Accidents were not infrequent in hunting buffalo. Horses stumbled on uneven ground, stepped in badger holes, or were gored by wounded bulls. Riders were thrown and injured or killed. Lazy Boy recalled that Lame Bull, the Piegan head chief at the time of the 1855 treaty, was killed while running buffalo 3 years later. Amid the dust of the chase Lame Bull's horse did not move adroitly enough to avoid an old bull that attacked him. The horse fell on Lame Bull

> breaking his neck and crushing his ribs. Generally the less intelligent and well trained the horse, the greater was the chance of serious accident in the chase. (1955:159)

The threat of such imminent danger must have added to the excitement of the chase, which was apparently so exciting for both horse and rider, that the horses had to be restrained from rushing ahead before the signal had been given by the leader of the hunt. Henry Boller, describing a mid-winter chase in the upper Missouri River area, commented on the excitement and impatience of the horses (1959:231-232). His detailed account of the chase is as follows:

> The spectacle of a buffalo hunt when the ground was covered with snow was even more thrilling than in the summer-time. The danger was also greatly lessened by the soft, white carpet spread thickly over the prairie, serving to break the fall of any unfortunate hunter whose horse by a mis-step might throw him. The night before a hunt takes place the band of soldiers meet in their lodge and appoint some one of experience to head the party. The leader thus chosen has full authority for the time being and every hunter must conform to his orders.
>
> No sooner is this settled than some long-winded old fellow is directed to harangue through the camp, "Bring up the horses and prepare to go to the surround," naming the leader and the time of starting. The squaws bestir themselves to provide plenty of cottonwood bark that the horses may have something to eat during the long night, and see that the saddles and apishamores are in complete order, taking care to tie a bundle of raw-hide cords to the horn of each pack-saddle, by which to secure the meat. The hunters look carefully to their weapons and whet their butcher-knives to a keen edge.
>
> Long before daylight all are aroused by the cry. "Get up, get up, and saddle your horses!" While the hunters eat their breakfast the women attend to this, and as soon as each one is ready he starts off, leading his horses, sometimes accompanied by a squaw to assist in butchering and packing the meat.
>
> Every hunter takes from two to four horses, these being as many as he can properly manage. The favorite buffalo-horse trots along loose, carrying only a light skin pad stuffed with deer or antelope hair. The hunter rides one of his pack-horses, in order that his runner may be fresh for the severe labor of the chase.
>
> Arrived at the rendezvous previously designated by the leader, who is there with his lance or insignia of rank, they halt until the whole party has assembled. All now ride in a compact body, taking care never to press too closely on the leader, who with several experienced friends keeps well in advance to discover the game before

coming near enough to alarm it. The only sound that breaks the dead silence of these snow-clad plains is the crunching of the horses' feet as they break through the frozen crust or the occasional jingle of the equipment. We ride steadily on until our leader comes to a sudden halt, and the hunters eagerly gather around him. The band of buffaloes we intend to run is before us and more than a mile distant, the wind is very favorable, blowing from them to us.

The customary deliberative pipe is lit and a plan of attack agreed upon and communicated to the hunters in a few words by the leader. We start again, trotting and cantering along by turns, more rapidly than we have yet done, each horse being fully alive to the exciting scenes that will soon be enacted. A wide detour is made and under cover of a deep roll of the prairie we approach as near as possible without alarming the herd. Not many words are uttered for each one understands his business. The pack-horses are quickly hobbled and left, together with everything superfluous. Mounting the runners, whose impatient restlessness can hardly be controlled, with bows and arrows grasped firmly in their hands the hunters are ready for the onset.

Many ride bareback with only a lariat around the lower jaw to manage the horse, who is so well trained and so perfectly understands his rider's wishes that it usually hangs loose upon his neck or trails behind. We ride abreast, gradually extending our front like the horns of a crescent to make the surround as perfect as possible. Insensibly we quicken our pace and are careering forward at full gallop. The horses snort impatiently, with heads and tails erect, and the quick glances of their eyes tell the excitement they fully share, evidently feeling, as the Indians say, as if their hearts were glad.

Faster and faster we go. We are close on the herd, which, now thoroughly alarmed, huddles together for a brief instant and then dashes madly off, directing its course against the wind, the fattest cows leading the van. Our leader's lance is lowered. Now is the time, and every horse is stretched out at his utmost speed. The buffaloes appear to rise out of the ground as we rush on, until what at first seemed but a small band has increased to an immense herd. In a few minutes the fastest horses have carried their riders among them in every direction and selecting their meat they pursue it until killed. An occasional shot is heard, but the work of destruction is chiefly accomplished by the bow and arrow.

In a few moments some of the cows fall behind, gradually slackening their speed until they come to a stand-still. The blood flows freely from their mouths and they soon lie down to rise no more. Perhaps here and there a severely though not fatally wounded buffalo has been brought to bay and shows fight, charging upon his pursuer whenever he rides too close and calling in to play the agility of the horse, who, by skilfully wheeling, avoids the shock. A well-directed shot settles the question, and while bristling with impotent fury the crimson tide gushes from her mouth and she convulsively breathes her last.

> The white prairie is soon dotted with the black carcasses of the victims. Wolves skulk at a little distance, impatiently awaiting their anticipated feast, and the flocks of ravens, flying low and croaking hoarsely, make their appearance so suddenly that no one knows whence they come. Here a hunter has been thrown by his horse getting his foot into one of the many holes with which the prairie is filled, but the thick carpet of snow has saved him from receiving serious injury. The more expert hunters will kill from three to five cows in a chase, and claim their game by the marks on their arrows. (1959:229-233)

George Catlin also witnessed the communal chase among the Indians of the Upper Missouri River area. He recorded the following dramatic account of the chase:

> No bridle whatever is used in this country by the Indians, as they have no knowledge of a bit. A short halter, however, which answers in place of a bridle, is in general use; of which they usually form a noose around the under jaw of the horse, by which they get great power over the animal; and which they use generally to stop rather than guide the horse. This halter is called by the French Traders in the country, l'arrêt, the stop, and has great power in arresting the speed of a horse; though it is extremely dangerous to use too freely as a guide, interfering too much with the freedom of his limbs, for the certainty of his feet and security of his rider.
>
> When the Indian then has directed the course of his steed to the animal which he has selected, the training of the horse is such, that it knows the object of its rider's selection, and exerts every muscle to give it close company; while the halter lies loose and untouched upon its neck, and the rider leans quite forward, and off from the side of his horse, with his bow drawn, and ready for the deadly shot, which is given at the instant he is opposite to the animal's body. The horse being instinctively afraid of the animal (though he generally brings his rider within the reach of the end of his bow), keeps his eye strained upon the furious enemy he is so closely encountering; and the moment he has approached to the nearest distance required, and has passed the animal, whether the shot is given or not, he gradually sheers off, to prevent coming on to the horns of the infuriated beast, which often are instantly turned, and presented for the fatal reception of its too familiar attendant. These frightful collisions often take place, notwithstanding the sagacity of the horse, and the caution of its rider; for in these extraordinary (and inexpressible) exhilarations of chase, which seem to drown the prudence alike, of instinct and reason, both horse and rider often seem rushing on to destruction, as if it were mere pastime and amusement.
>
> I have always counted myself a prudent man, yet I have often waked (as it were) out of the delirium of the chase (into which I had fallen, as into an agitated sleep, and through which I had passed as through a delightful dream), where to have died would have been but to have remained, riding on, without a struggle or a pang.

> In some of these, too, I have arisen from the prairie, covered with dirt and blood, having severed company with gun and horse, the one lying some twenty or thirty feet from me with a broken stalk, and the other coolly brousing on the grass a half a mile distance, without man, and without other beast remaining in sight. (1841, Vol. 1:252-253)

During the 1860s, the missionary John McDougall participated in a communal chase among the Plains Cree near the Battle River, in the vicinity of the present-day Alberta - Saskatchewan border. In the chase he described, both guns and bows and arrows were used.

> At last the chief mounted, and in company with father and Messrs. Woolsey and Steinhauer led the way. From all parts of the camp riders came forth, many of them leading their runners, so as to have them as fresh as possible for the coming race. . . .
>
> We rode through prairie and woods. Around us were evidences of the recent presence of thousands of buffalo, the country in some places smelling like a barnyard. Then, after riding some five or six miles, we came upon a ridge which enabled us to look down and across a plain or open country, some ten by twenty miles in size. It seemed to be literally full of buffalo.
>
> The whole country was a black, moving mass. The earth trembled to their tread and roar. Sometimes the clouds of dust from the dustpans as the bulls pawed the earth rose in the air like smoke from a prairie fire. There were thousands of them. My horse became excited with the sight and smell of the great herds. As our line moved down the slope, the outer fringe of buffalo fell back on the larger herds until there seemed to be one living wall before us.
>
> Presently the captain of the hunt gave the command "Alight! See to your girths and arms, and make ready!"
>
> I watched my companions and as they did, so did I. They tightened their girths and then they began to look to their arms. Most of them had bow and quiver. I turned to one with a gun and watched him. He rubbed his steel and pointed his flint, then took from his ball-pouch some balls, selected some of them, and put these in his mouth. I took several balls from my pouch, selected six, and put them in my mouth. These balls were heavy (twenty-eight to the pound), "but when you are in Rome you must do as Romans do."
>
> In a very short time our captain called, "Mount!"
>
> We formed in one long line. The huge animals moved away as we advanced, increasing their speed as they went. Following our captain, we increased ours. The horses were all excitement; the men were pale, nervous, and quiet. Under foot was rough ground, and there were any number of badger holes. The dangers were being shot, or thrown, or gored. Now we were at half speed, line as yet unbroken.

> Suddenly our captain held his gun in the air and shouted, with strong emphasis on the last syllable, "Ah-ah-how!"
>
> Away we went, every man for himself. Whips flew. Men were sitting well forward and seemed to go ahead of their steeds. We were in the dust cloud, eyes and ears and nose filled with it. Then we were through and here were the buffalo speeding before us. Already the fast horses were into the herd. The swish of an arrow, the blast of old flint-lock, and the wounded animals jumped aside, streams of blood gushing from their nostrils and mouths, showing that they were mortally hit. Others fell dead as soon as shot. Others had either a fore or hind leg broken and stood around at bay challenging another shot. Thus the carnage went on, thicker and faster as the slow-mounted hunters came up. (1971:63-65)

When buffalo were sighted by scouts from the camp, the news was communicated back to camp using established signals. When the Kutenai ventured out onto the Plains, for example, they signaled the finding of buffalo by flashing mirrors in the sun (Turney-High 1941:35). David Mandelbaum mentioned signals employed by the Plains Cree in his summary of the communal chase method of hunting buffalo.

> As soon as a large encampment was formed, scouts were dispatched to find buffalo. When one of them sighted a herd, he signaled by waving his robe. If he saw a great many buffalo, he threw up handfuls of dirt as well. The men in camp quickly saddled their horses and set out. If a man had more than one horse, he rode the pack animal out, saving the hunting horse for the chase. The warriors lined the hunters in a row so that each should have a fair chance and so that the herd might not be stampeded prematurely. At a signal from one of the warriors, the horses were given free rein and the hunt was begun. The riders singled out fat buffalo, pursuing and killing one after another until the herd had outdistanced them. (1979:56)

Based on information provided by Gros Ventre informants, Regina Flannery wrote the following description of the chase among the Gros Ventre, which is very similar to the above accounts:

> The general procedure in hunting buffalo was about as follows. First, scouts, sent out to locate the herd, reported its whereabouts. Then the group of hunters, varying in size according to whether the whole tribe or only a band or two were camped together, would depart from camp in order to reach the herd by dawn. The swift buffalo horses to be used in the actual chase were led unburdened so as to keep them fresh. When the herd was spotted, the hunters mounted their swiftest horses and, at a given signal, all dashed into the herd at once, each man then killing as many as he could before the buffalo got out of range. Only one such run a day was made and, although all hunters had an equal opportunity, so to speak, since no one of them started before the others, the greatest chance of success

> lay with the man mounted on the fastest horse. Incidentally, the gun never supplanted the bow and arrow as a weapon of the chase because, for a mounted hunter riding close to the game, the bow and arrow was just as effective and even easier to use than the gun which had to be reloaded and which was difficult to aim accurately when travelling at a fast pace. Succeeding generations of Gros Ventre boys were trained in archery right up to, and including the time of the disappearance of the buffalo. (1953:55-56)

Flannery, like most of the writers quoted above, testified to the Indians' preference for the bow and arrow as the weapon of the chase on horseback. The arrows were individually marked and served as identifying markers indicating to whom each slaughtered buffalo belonged.

Once the slaughter was complete and the hunters had identified the buffalo they had killed, men and women commenced skinning and butchering. Although most hunters usually killed no more than two animals (Ewers 1955:80; Ewers 1958:159; Turney-High 1941:36), McDougall witnessed a massive slaughter during which some hunters killed as many as six buffalo. His description of the post-slaughter activities follows:

> Ascending a hill, I could see men and women at work skinning and cutting up. In little groups they dotted the plain. The pack-horses were waiting for their loads and the runners were feeding quietly beside them, their work for the day finished. I think I am within bounds when I say there must have been between eight hundred and a thousand buffalo slain in that run. Many of the hunters killed four, some of them six and seven. (1971:66)

VARIATIONS ON THE ABOVE METHODS

Variations on the four types of communal hunting methods described above were also employed by the Plains Indians. In executing their communal hunts, the Indians always used geographic and climatic conditions to their advantage, and applied great ingenuity in compensating for any disadvantages with which they may have been faced (for example, an insufficient number of people or horses).

Variations on the traditional buffalo pound method were not uncommon. Where geographic conditions permitted, the Indians drove large numbers of buffalo into natural traps that did not require the construction of a corral. Informants on the Blackfoot Reservation in Montana told S. A. Barrett (1921b:25) that, during the winter season, a corral was not required in a buffalo drive using a precipice if a stream or lake lay at the foot of the precipice. Any buffalo who survived the fall would flounder on the ice and be easy prey for hunters. In summer, buffalo could be driven down a gorge and into a valley where they became entrapped in a bog or arroyo. Writing about a specific drive site in North Dakota, which the Arikara apparently attribute to the Assiniboine Indians, Melvin R. Gilmore gave the following description of how such a drive would have been executed:

> The buffalo-drive is on the high plain on the north side of the Missouri river, twelve or fifteen miles east of Elbowoods, North Dakota. The plain is here broken by the gorge of a creek, which flows from northeast to southwest and then turns southward and discharges into the Missouri, four or five miles away. The plain slopes away to the south. The wings of the drive are laid along the scarp which overlooks the gorge of the creek to the north. The bed of the creek is miry, and probably two hundred feet below the level of the plain. The descent from the plain into the gorge is rather precipitous in places by steep gullies cut back into the scarp, and in places drops away over banks eight to fifteen feet in height.
>
> The buffalo-drive was made by gathering bowlders from the prairie and piling them into cairns at a uniform distance of five paces apart for a distance of about a mile and a half along the scarp of each side of a gap about two hundred feet wide which opens at the head of a gully leading into the creek gorge. By the nature of the topography this gully lies at the point of convergence of the lines of the scarp, on one side trending away to the southeast on the other side to the southwest.
>
> At the farther end of the line of cairns to the southeast, which we may call the right wing of the drive, is a number of tent circles . . . This was the camp of the hunting parties which resorted here periodically for the buffalo slaughter. The bowlders were for the purpose of holding down the bottom of the tipi-covers, hence the circles of bowlders indicate the sites and the diameter of the tents. They are uniformly five paces in diameter. The camp-site is situated at the head of a coulee which leads down to the creek where the campers obtained their water at a point about half a mile above the place of slaughter. Thus the Assiniboin, during the necessary time of detention at the camp preserving the meat and preparing the hides, were assured of a supply of good water, uncontaminated by the carrion resulting from the slaughter.
>
> The situation of the camp was such, by the nature of the topography, that it not only was convenient to water, but was hidden from view of the herds approaching the drive from the prairie at the south . . .

> The left wing of the drive extends in a line of cairns away to the southwest for more than half a mile. The cairns throughout the extent of both wings are evenly spaced at a distance of five paces apart, and are heaped about two feet high. In operation a man was stationed behind each cairn, lying face downward under a spread buffalo-robe. In approaching the creek the herd would be successively veered off all along the line by the man raising his arms and moving the edges of his robe; thus the herd was continually moved toward the gap. The cairns served to give some protection to the men behind them in case of a stampede.
>
> As the herd came to the gap they were frightened, and hurried down the steep and uneven descent, stumbling and falling and trampling and crippling one another. Many of those which ultimately reached the stream at the bottom became helplessly bogged there, so the slayers were able to approach and kill the animals crippled in the descent or mired at the creek. (1924:205-210)

Zenas Leonard described a variation of the pound method that was employed by the Crow Indians during the early nineteenth century. Although this particular method involved the use of a fence, which may be considered a partial corral, the pound consisted mainly of a natural canyon.

> They have another method of taking the buffalo, which is in this way: - If they know of a place at the base of some mountain that is surrounded on three sides with inaccessible precipices, and a level valley leading into it, they manage to drive the whole gang of buffalo into this neck and force them up to its termination, when they erect a strong fence across the valley, or outlet, and then butcher their prisoners at leisure. (1959:144)

A Blackfoot informant, Old Weasel Tail, provided John Ewers with a description of a variant of the surround method which was apparently used by the Blackfoot in the pre-horse period. This method seemed to combine the buffalo pound and surround methods.

> After swift-running men located a herd of buffalo, the chief told all the women to get their dog travois. Men and women went out together, approaching the herd from down wind so the animals wouldn't get their scent and run off. The women were told to place their travois upright in the earth, small (front) end up. The travois were so spaced that they would be tied together to form a semicircular fence. Women and dogs hid behind them while two fast-running men circled the buffalo herd, approached the animals from up wind, and drove them toward the travois fence. Other men took positions along the sides of the route and closed in as the buffalo neared the travois barrier. Barking dogs and shouting women kept the buffalo back. The men rushed in and killed the buffalo with arrows and lances.

> After the buffalo were killed the chief went into the centre of the enclosure, counted the dead animals, and divided the meat equally among the participating families. He also distributed the hides to the families for making lodge covers. The women hauled the meat and hides to camp on their dog travois. This was called surround of the buffalo. (Ewers 1958:11-12)

George Bird Grinnell described a similar method which employed tipis in surrounding a herd of buffalo. This method was apparently known to the Piegan Indians.

> In those days the *Pi-kŭń-i* were very numerous, and sometimes when a lot of buffalo were found in a favorable position, and there was no wind, the people would surround them, and set up their lodges about them, thus practically building a corral of lodges. After all preparations had been made, they would frighten the buffalo, which being afraid to pass through between the lodges, would run round and round in a great circle, and when they were exhausted the people would kill them. (1893:234)

The Arikara Indians sometimes employed a type of surround in which the buffalo were lured into a circle of people by a man who had the power to charm the buffalo.

> The Rees [Arikara] also had a man who called the buffalo. The people would go out on the prairie, and would hide themselves so as to form a big circle, open at one side. Then Chief Bear would go off over to where the buffalo were, and would bring them into the circle, and the people would close up the gap, so that the buffalo would be surrounded. They would run round and round within the circle, and the people would keep closing in on them, and would prevent them from breaking through the line by yelling and tossing their robes in the air, and finally the buffalo would get tired out and it was easy to kill them. (Grinnell 1892:134)

A variation of the surround in which the Indians encircled a herd by setting fire to the grass around the herd, was a technique reported for tribes living in the Upper Mississippi country along the eastern edge of the Plains (Lowie 1963:15-16). The hunters created an almost complete circle of fire around the buffalo, leaving a limited fire-free area through which the frightened animals charged in an attempt to escape. The hunters positioned themselves at the opening and fired upon the buffalo as they fled past. A late seventeenth century fur trader, Nicholas Perrot, recorded the following description of this communal hunting technique that provides an excellent impression of the characteristics of the communal event, such as the careful planning and social organization involved:

"The people of an entire village go together to this /buffalo/ hunting, and, if there are not enough of them, they unite with those of another village . . . first, in order to defend themselves against the attacks which their enemies might make against them; and the other, that thus they may be able to drive in a greater number of animals.

"They assemble at nightfall on the eve of their departure, and choose among their number the man whom they consider most capable of being the director of the expedition. This is usually one of the more prominent war chiefs; he takes for adjutants all the other chiefs, and agrees with them on all the rules that should be laid down for the procedure that they must observe in order to hunt the buffaloes.

"On the same day, one of the leading men makes a harangue before all the assembly, in which he makes known the orders that have been issued in regard to the limits which shall be observed in this hunt, and the punishments ordained for those persons who overstep them. He declares that these orders provide for depriving the disobedient of their weapons, breaking their bows and arrows, tearing down their cabins, and plundering them of property found therein; and this law is inexorable among them. The reason which obliges them to employ so much severity and strictness against those who fail to obey the rule is, that if any of them during the hunt were to pass beyond the prescribed limits all the game would escape them by flight, and the village would be in danger of perishing from hunger. All the chiefs are generally subject to this law; and even if he who is/appointed/ over all the rest should commit this fault, he would be punished with the same rigor as any other man, without regard to his authority. In case he refused to submit to it, all the young men -- who are, so to speak, his prop -- would unite against him and lay violent hands on all persons who should come forward to take his part.

"This headman of the chiefs, with his adjutants, forms the necessary detachments to go out scouting on the /various/routes; and if these men suspect that there is any danger for their people they will come back over their path in order to cover their tracks and to prevent any attack by the enemy.

"When the village has a large number of young men able to bear arms they divide these into three bodies: one takes its route to the right, another to the left, and one half of the third party is divided between the two former ones. One of these latter parties goes away/from its main column/a league or thereabout to the right, and the other remains on the left, both parties forming, each on its own side, a long file; then they set out, in single file, and continue their march until they judge that their line of men is sufficiently long for them to advance into the depths (of the prairies) . . . When the day has at last begun . . . and as soon as the sun has dried off the dew on the ground, the parties on the right and on the left, being in sight of each other, come together in (one) file, and close up the end of the circuit which they intend to surround.

> "They commence at once by setting fire to the dried herbage which is abundant in these prairies; those who occupy the flanks do the same and at that moment the entire village breaks camp, with all the old men and young boys -- who divide themselves equally on both sides, move away to a distance, and keep the hunting parties in sight so they can act with the latter, so that fires can be lighted on all four sides at once and gradually communicate the flames from one to another. That produces the same effect to the sight as four ranks of palisades, in which the buffaloes are enclosed. When the savages see that the animals are trying to get outside of it, in order to escape the fires which surround them along all sides . . . they run at them and compel them to re-enter the enclosure; and they avail themselves of this method to kill all the beasts. It is asserted that there are some villages which have secured as many as fifteen hundred buffaloes, and others more or fewer, according to the number of men in each and the size of the enclosure which they make in their hunting. For that country is nothing but plains, except only some small islands to which they are accustomed to go and encamp for the purpose of drying their store of meat.
>
> "The elk and the deer are quite often caught in these circles of fire, but they make their escape; and the savages usually follow up only these animals that they are certain of killing or of capturing by surprise.
>
> "The people of the village then encamp in the place/that they find/most convenient, and nearest to the scene of the carnage. This camp being established, the game is divided among the families, each receiving what its hunters have slain; some have more and others less, according to the number of men in each; but the whole is distributed by the decisions of the chiefs, with great equity and justice. (Lehmer 1963:212-213)

According to one recent writer, fire was also used to drive buffalo into ravines or over cliffs.

> The hunters formed a line several hundred yards farther upwind and set a row of fires in a wide arc reaching halfway around the herd. As the frightened animals dashed in terror from the wall of wind-driven flame, they left a heap of dead and crippled animals at the foot of the cliff or in the bottom of the ravine, ready for the butchering crew. (Haines 1971:23)

George Bird Grinnell described a combination drive/surround method not commonly recounted but which he believed was used by the Blackfoot Indians.

> In connection with the subject of leading or decoying the buffalo, another matter not generally known may be mentioned. Sometimes, as a matter of convenience, a herd was brought from a long distance close up to the camp. This was usually done in the spring of the year, when the horses were thin in flesh and not in condition

> to stand a long chase. I myself have never seen this; but my friend, William Jackson, was once present at such a drive by the Red River half-breeds, and has described to me the way in which it was done.
>
> The camp was on Box Elder Creek near the Musselshell River. It was in the spring of 1881, and the horses were all pretty well run down and thin, so that their owners wished to spare them as much as possible. The buffalo were seven or eight miles distant, and two men were sent out to bring them to the camp. Other men, leading fresh horses, went with them, and hid themselves among the hills at different points along the course that the buffalo were expected to take, at intervals of a mile and a half. They watched the herd, and were on hand to supply the fresh horses to the men who were bringing it.
>
> The buffalo were on a wide flat, and the men rode over the hill and advanced toward the herd at a walk. At length the buffalo noticed them, and began to huddle up together and to walk about, and at length to walk away. Then the men turned, and rode along parallel to the buffalo's course, and at the same gait that these were taking. When the buffalo began to trot, the men trotted, and when the herd began to lope, the men loped, and at length they were all running pretty fast. The men kept about half a mile from the herd, and up even with the leaders. As they ran, the herd kept constantly edging a little toward the riders, as if trying to cross in front of them. This inclination toward the men was least when they were far off, and greatest when they drew nearer to them. At no time were the men nearer to the herd than four hundred yards. If the buffalo edged too much toward the riders, so that the course they were taking would lead them away from camp, the men would drop back and cross over behind the herd to the other side, and then, pushing their horses hard, would come up with the leaders, - but still at a distance from them, - and then the buffalo would begin to edge toward them, and the herd would be brought back again to the desired course. If necessary, this was repeated, and so the buffalo were kept travelling in a course approximately straight.
>
> By the time the buffalo had got pretty near to the camp, they were pretty well winded, and the tongues of many of them were hanging out. This herd was led up among the rolling hills about a mile from the camp, and there the people were waiting for them, and charged them, when the herd broke up, the animals running in every direction. (1893:232-233)

In winter, buffalo could be driven into deep snow, where they became bogged down, or over ice, where they floundered. The trader Charles MacKenzie apparently witnessed communal hunts during which buffalo were driven onto thin ice and eventually drowned. He related the following example of this practice, which took place in the upper Missouri River area during the fall of 1805:

> At times the Indians would congregate in great numbers and continue to drive large herds to the banks of the Mississouri and, by gradual approaches, confine them into a narrow space where the ice was weakest, until by their weight and pressure, large square of ice, some of fifty yards, would give away and vast numbers of animals were plunged into the river and carried by the current under the solid ice to a "mare" a little below, where they again emerged, floated and were received by crowds of women and children, provided with proper hooks and instruments to haul them on the ice, which, in a short time, became strewed with dead carcasses. Here they were left for some time to take flavor, then carried home and considered a great delicacy. (1889:366)

In summary, the Plains Indians utilized geographic and climatic features to their best advantage when hunting all types of game and whether hunting communally, individually or in small groups. All of the hunting methods described above illustrate variations on the four basic types of communal methods, methods that involved a large number of people working cooperatively to secure provision. The hunts described above would have been carefully planned in advance and involved the large scale organization of tribal or band resources.

OTHER METHODS OF PROCURING BUFFALO

Buffalo were not only hunted collectively, but also by individuals and small parties of hunters at all seasons. While hunting in small groups or individually, the Plains hunters exploited the natural advantages of the terrain, wind conditions and characteristics of the buffalo to the greatest extent possible. Many techniques employed by small hunting parties were similar to those employed in communal hunts.

STALKING BUFFALO

Stalking buffalo involved stealthily approaching the buffalo on foot until the animals were within firing range. As much as possible, the hunter concealed himself behind hills, trees, bushes and any other geographic features, and was careful to remain downwind of the herd as he approached the buffalo. Stalking was apparently most easily accomplished during the middle of the day, when the buffalo were usually lying down. Denig outlined the general technique of stalking as follows:

> . . . buffalo can be easier approached in the middle of the day when they lie down for an hour or two, and if not asleep their range of vision is much diminished by that position and intervening grass. Light and shade are not of much consequence in approaching game. The object of the hunter is to keep out of sight entirely until the moment of firing, and when that is not possible to make use of some skin, branches, grass, etc., to deceive the animal, move very slowly, and keep the wind in his favor. (1930:539)

When the terrain offered the hunter little chance of concealment, stalking was commonly done in a disguise. Hunters usually disguised themselves as a buffalo or wolf (wolves often followed herds of buffalo but were not a threat to them while grazing in a group). If two men were stalking together, both disguises might be used. At other times, as noted above by Denig, a hunter might cover himself with grass and twigs to disguise himself as he approached a herd.

A hunter skilled at decoying could use a buffalo calf disguise to lure the buffalo toward him and then fire when they were within range. Father Pierre De Smet recorded the following description of the stalking exploit of an Assiniboine hunter that highlights the "spellbound" behavior displayed by buffalo when subjected to decoying:

> An Assiniboin gave us a singular proof of his dexterity in the chase; I cannot forbear mentioning it. Alone and on foot, he stealthily approached a large herd of bison cows. As soon as he was near enough to them to allow of their hearing him, he began to imitate the cry of a young calf. At once the cows ran towards the place of concealment of the ingenious hunter, and he killed one of them. The troop, alarmed, withdrew hastily and in great disorder. He reloaded his rifle and renewed his cry; the cows stopped, returned as if by enchantment, and he killed a second. The Assiniboin assured us that he could easily have taken more by the same strategem, but thinking two cows were enough for us, he suffered the rest to go. (1972:84)

The cows were the object of the hunter's efforts when decoying was involved, since he played upon the maternal reaction of the cows to the sound of a distressed calf.

On some occasions, two men, one disguised as a wolf and the other as a calf, performed a small drama designed to make the buffalo cows think a calf was being attacked. This technique was witnessed by Paul Kane while hunting with a Metis hunter near Fort Edmonton during the harsh winter of 1847-48. Paul Kane referred to this method as "making a calf".

> This ruse is generally performed by two men, one covering himself with wolf skin, the other with buffalo skin. They then crawl on all fours within sight of the buffaloes, and as soon as they have engaged their attention, the pretended wolf jumps on the pretended calf, which bellows in imitation of a real one. The buffaloes seem to be easily deceived in this way. As the bellowing is generally perfect, the herd rush on to the protection of their supposed young with such impetuosity that they do not perceive the cheat until they are quite close enough to be shot; indeed, Francois' bellowing was so perfect, that we were nearly run down. As soon, however, as we jumped up, they turned and fled, leaving two of their number behind, who paid the penalty of their want of discernment with their lives. (1925:267)

In another incident of "making a calf" observed by Kane, a solitary cow and bull were hunted. Only the cow fell victim to the trick, "The cow attempted to spring towards us, but the bull seeming to understand the trick, tried to stop her by running between us; the cow, however, dodged and got round him, and ran within ten or fifteen yards of us, with the bull close at her heels, when we both fired and brought her down" (ibid.).

The ethnographer Alanson Skinner recorded an account of stalking in which a man wearing a white blanket was interpreted by the buffalo to be a wolf. This account was related to Skinner by a Plains Cree Indian:

> Sometimes ingenious subterfuges were resorted to in order to lure the buffalo within range. Jacob Bear and a companion hit upon the following device, which may have been generally known. Approaching the herd the other Indian disguised himself in a buffalo robe, got on all fours, and imitating a calf, began to bleat pitifully, while Jacob, muffled in a white blanket to look like a wolf, pretended to attack him. This brought the buffalo to the succor of the supposed calf and gave the hunters an opportunity to shoot. This was on the Qu'Appelle River. (1914b:528-529)

Since decoying was a rare talent, hunters often used the advantage of a disguise simply to enable them to approach the herd within firing range. When the buffalo were located on a flat, open plain, the hunters often resorted to crawling. According to Denig (1930:534), under such circumstances a "skin dress" had to be worn in summer, and a "white blanket coat . . . or buffalo robe coat with all the hair turned inside" in winter. White or light-colored clothing apparently did not attract the attention of the buffalo (ibid.). Denig described the slow and laborious process of crawling toward a herd as follows:

> The hunter has his gun covered with skin to prevent the dirt or snow from entering the barrel while in the act of crawling. His accoutrements are also firmly attached to his person by a belt . . . If he finds the country too level to get them within range of the gun he then commences crawling on his belly toward them, pushing his gun ahead as he goes.
>
> This is a very laborious and slow mode of progressing and often takes one or two hours to come within shooting distance, as the hunter only moves while the animals are eating. Stopping the moment their attention is directed toward him. In the snow it is a very cold business, and in the summer difficult on account of the cactus, but they are obliged to do it frequently in both seasons on these level plains . . . When . . . he has arrived within shooting distance he fires without rising, elevating his piece by support of the elbows. After firing he remains motionless a few minutes during which the buffalo, after recoiling a few paces, and seeing nothing on the move, commence grazing. He now turns over on his back and reloads his gun (lying in this position) by putting the butt against his foot - and when ready will turn over on his belly and fire again, and so on, sometimes killing six or eight without changing his place, or with very little movement. (1930:534-535)

This method was well known to both Indians and white buffalo hunters and was often referred to as the "still-hunt" method (Allen 1876:211; Hornaday 1971:465-470). Hornaday (ibid.) felt that this was the "deadliest" and most "unfair, ignoble, and utterly reprehensible" method of hunting buffalo, lacking "nearly every element of the buoyant excitement and spice of danger that accompanied genuine buffalo hunting on horseback". Hornaday described the "stupidity" of the buffalo, of which the hunter took advantage, as follows:

> If the herd is at rest, the oldest cow is always supposed to be the leader, and she is the one to kill first. The noise startles the buffaloes, they stare at the little cloud of white smoke and feel inclined to run, but seeing their leader hesitate they wait for her. She, when struck, gives a violent start forward, but soon stops, and the blood begins to run from her nostrils in two bright crimson streams. In a couple of minutes her body sways unsteadily, she staggers, tries hard to keep her feet, but soon gives a lurch sidewise and falls. Some of the other members of the herd come around her and stare and sniff in wide-eyed wonder, and one of the more wary starts to lead the herd away. But before she takes half a dozen steps "bang!" goes the hidden rifle again, and her leadership is ended forever. Her fall only increases the bewilderment of the survivors over a proceeding which to them is strange and unaccountable, because the danger is not visible. They cluster around the fallen ones, sniff at the warm blood, bawl aloud in wonderment, and do everything but run away. (1971:469)

Old Weasel Tail, a Blackfoot informant interviewed by John Ewers, described another method of approaching buffalo that was practiced by the Blood Indians. Two men, disguised under one buffalo robe, moved close to the herd, while another man hid behind the disguised men. When they came within arrow range, the third man stepped out from behind the disguised men and fired (Ewers 1955:167).

A variation of this method, practiced by several hunters (from four to ten) at once, was described by Blackfoot informants interviewed by Claude Schaeffer (n.d.). This method, called "walk-towards-while-spreading-robe", was employed during the warmer months to obtain several bison for a small group. The men approached the herd in a line, in pairs, holding buffalo robes before them at arm's length. Also concealed behind each robe was an archer and a man with a long forked stick in each hand. As soon as the line of hunters came within arrow range, the man with the stick would thrust aside a lower corner of the two robes extended before him and the archer would fire through the opening. Often, several animals were killed before the herd fled in alarm. Based on information provided by Plains Cree informants, David Mandelbaum reported, "Several men might drape a buffalo robe over a pole and approach a herd behind this screen. One of the hunters would bleat like a calf and attract cows" (1979:57). According to information related to

Grinnell by a Hudson's Bay Company hunter, when buffalo were stalked using disguises "the smell of the blood from the wounded and dying would set the bulls crazy. They would run up and lick the blood, and sometimes toss the dead ones clear from the ground. Then they would bellow and fight each other, sometimes goring one another so badly that they died" (1893:235).

Buffalo could also be stalked without a disguise using a different form of deception, as described below by Paul Kane. He hunted with a group of men who employed the following method several times near Fort Edmonton:

> Another mode of hunting buffaloes, which we often practised with great success at Edmonton, was acompanied however with considerable fatigue: it consisted in crawling on our bellies and dragging ourselves along by our hands, being first fully certain that we were to the leeward of the herd, however light the wind, lest they should scent us until we came within a few yards of them, which they would almost invariably permit us to do. Should there be twenty hunters engaged in the sport, each man follows exactly in the track of his leader, keeping his head close to the heels of his predecessor: the buffaloes seem not to take the slightest notice of the moving line, which the Indians account for by saying that the buffalo supposes it to be a big snake winding through the snow or grass. (1925:268)

DRIVING BUFFALO INTO NATURAL TRAPS

The Plains tribes used natural traps as much as possible. David Mandelbaum stated of the Plains Cree: "Whenever it was possible, buffalo were driven into places where they floundered and were easily taken. In summer they were guided into marshes; in winter, they were forced into deep snow or over ice . . . The hunters did not plan such drives beforehand, but simply exploited the natural advantages of the terrain" (1979:56).

During the winter, snow conditions dictated that a great deal of hunting be done on foot. According to elderly Cheyenne informants interviewed by Grinnell, winter was the best time to hunt buffalo.

> The best time to hunt buffalo, the old men say, was in winter, in the deep snow; for they used to make snowshoes, which supported them, while the buffalo sank deep in the snow, and the people could run up close beside the buffalo and kill them with their lances. Then they carried in the meat, or at a later time brought it on the dog travois. (1923, Vol. 1:53)

Denig recorded the Assiniboine practice of driving buffalo into snow drifts.

> Another method by which great numbers of both buffalo and antelope are slain is, when the snow has drifted in the gullies, forming banks 10 to 15 feet deep. The animals are pursued on foot, with raquettes and snowshoes. The hunter goes over the snow, but the animals become embedded and are killed with ease. (1930:535)

The use of snowshoes was also attributed to the Arapaho by Kroeber (1975:23), the Blackfoot by Ewers (1958:14), the Plains Cree and Plains Ojibway by Skinner (1914b:525; 1914a:496), and the Indian tribes of the Upper Missouri River area by Catlin (1926:286). Hunting on snowshoes was so safe and relatively easy that even the women and children were able to kill buffalo in this manner (McHugh 1972:81). Paul Kane, while buffalo hunting near Fort Edmonton, observed the behavior of a large herd of buffalo in deep snow.

> After going about three miles further, we came to a place where the snow was trodden down in every direction, and on ascending the bank, we found ourselves in the close vicinity of an enormous band of buffaloes, probably numbering nearly 10,000. An Indian hunter started off for the purpose of turning some of them towards us; but the snow was so deep, that the buffaloes were either unable or unwilling to run far, and at last came to a dead stand. We therefore secured our horses, and advanced toward them on foot to within forty or fifty yards, when we commenced firing, which we continued to do until we were tired of a sport so little exciting; for, strange to say, they never tried either to escape or to attack us. (1925:258)

In winter, buffalo were also chased onto ice where they either slipped and fell and were easily slaughtered, or fell through the ice, drowned, and were eventually retrieved by the Indians. Skinner described the following versions of this technique practiced by the Plains Cree:

> The buffalo were sometimes driven out on the ice and slain in the following manner. Where a point jutted out into a lake, the Indians would make a semi-surround and force the bison down the point on to the ice were they would fall and break their legs or hips, and were so generally helpless and slipped about so that they were readily slaughtered. This was called a "wolf pound," and was so called because the Indians say they first learned to do this by watching the wolves, who made a ready prey of the bison when they got them on the ice.
>
> A variant of this scheme consisted in driving the buffalo out on thin ice where they broke through and were drowned en masse. The cold water preserved their bodies in primitive cold storage so that they were fit to use in the spring. (1914b:525)

RETRIEVING BUFFALO FROM RIVERS

A hunting technique employed occasionally by numerous tribes involved slaughtering buffalo while they attempted to cross rivers (McHugh 1972:61). Maximilian reported that the Mandan Indians of the Upper Missouri area were fond of retrieving drowned buffalo from the Missouri River during the spring break up of the ice on the river, ". . . when, towards spring, many drowned buffaloes float down the river with the ice, the Indians swim or leap with great dexterity over the flakes of ice, draw the animals to land, and eat the half putrid flesh, without manifesting any signs of disgust" (1906, Vol. 23:346). Edwin Thompson Denig reported this practice among the Arikara Indians of the Upper Missouri, and his description of "buffalo fishing" is more graphic than that by Maximilian.

> The Arickaras' are . . . good swimmers, venture out on floating cakes of ice when the Missouri breaks up in the spring and bring ashore the drowned buffalo drifting by. Many of these animals in attempting to cross the river in the fall before the ice is strong enough, break through. Often whole herds are thus drowned, which remain in the mud until the ice starts, when they are carried down by the current. Their carcasses are often piled up along the shore, impregnating the air with the odor of putrefied flesh for some distance around. Although these drowned animals are so much putrefied that the meat will scarely stick together, and can be eaten with a spoon in its raw state, yet these Indians devour it greedily, even when other and good meat can be had. It is a horrid mess, producing an intolerable stench, and one would think sufficient to cause the worst diseases. Yet they suffer no inconvenience form eating it, which they do, men, women, and children, as much as they can cram down. If tolerably sound it is boiled a little, if too rotten it is eaten raw. In either case it is the most unnatural substance in the shape of food to be met with even in this wild country. (1961:49)

The Indians demonstrated great skill and agility in retrieving the buffalo from the ice filled river, as noted by William Clark of the Lewis and Clark expedition, near Fort Mandan in March, 1805:

> The obsticle broke away above & the ice came down in great quantities tne river rose 13 inches the last 24 hours. I observed extraordinary dexterity of the Indians in jumping from one cake of ice to another, for the purpose of catching the buffalow as they float down many of the cakes of ice which they pass over are not two feet square. (1904, Vol. 1:278)

According to Audubon (1960, Vol. 1:496), buffalo also drowned after becoming exhausted from trying to climb out of the creeks and rivers where the banks were too steep. Drowned buffalo were known to pass through the city of St. Louis floating in the Missouri River, their bodies swollen and putrid. When they sighted drowned buffalo, the Indians would swim out into the river, retrieve the carcasses, butcher them and cook them, "no matter how putrid their flesh maybe." In some cases, "the whole of the hair had fallen off, from the rottenness of the Buffalo" (ibid.: 497). Although the accounts above refer to "buffalo fishing" among the tribes of the Upper Missouri, it is very likely that this practice was common to numerous Plains tribes.

THE NON-COMMUNAL CHASE

Individuals or small parties of hunters also chased buffalo, both on foot and on horseback. As the Indians grew wealthy in swift running horses, the chase on horseback essentially replaced the chase on foot. An Indian who did not have a horse with which to hunt could track and follow a buffalo on foot until the animal was exhausted. Two men sometimes organized a relay chase, alternately following the buffalo until it could run no further (Mandlebaum 1979:57).

The technique of chasing buffalo on horseback individually or with a small party was essentially the same as for the communal hunt, although it did not require the strict organizational procedures, planning and special pre-hunt preparations that characterized the communal chase. The chase involved stealthily approaching as close as possible to a herd or small group of buffalo and then charging, singling out buffalo and slaughtering them with either the bow and arrow or the gun. For details on the procedures executed by the horse and rider during the chase the reader is referred to the "Chase on Horseback" section of this report.

In summary, as well as executing communal buffalo hunts, whereby large amounts of provisions were secured for large groups of people, the Plains Indians hunted individually and in small groups. They also took advantage of opportunities to butcher and consume buffalo that had fallen prey to natural misfortune, such as drowning. The examples of buffalo hunting methods described above demonstrate that, when hunting buffalo non-communally, the Indians employed the same ingenuity and knowledge of their surroundings as when executing communal hunts.

METHODS OF BUTCHERING AND PROCESSING

BUTCHERING

After the Plains Indians had succeeded in slaughtering a herd of buffalo, much more work was required before the successful hunt was completed. The animals had to be skinned and butchered and transported to camp; the meat had to be cooked or preserved; and the hides and other materials had to be processed into items of material culture.

Whether butchering was done by the women, the men, or both sexes, depended upon the tribe and the circumstances of the hunt. Among some tribes, such as the Hidatsa of the Upper Missouri River area, butchering was women's, and sometimes also children's work (Catlin 1941, Vol. 1:201; McHugh 1972:84). Among the Blackfoot, however, butchering was done mainly by the men (McHugh 1972:84; Wissler 1910:41), although Wissler noted that the women assisted the men in butchering when game was killed near the camp (ibid.). Denig (1930:505) made the same observation of the Assiniboine Indians. Historic and ethnographic accounts of Plains tribes, particularly the Blackfoot, Assiniboine and Cree, indicate that when buffalo pounds and jumps were employed, both men and women usually participated in butchering the kill. Mandelbaum stated that Plains Cree women also butchered when the chase method of hunting was employed, "(the) women followed the hunters and, as the buffalo fell, they butchered them and transported the meat and hides to camp" (1979:58). Among the Gros Ventre, butchering was considered to be mainly work for men, although knowledge of butchering methods was considered useful to women (Flannery 1953:158-159). According to Kroeber, Gros Ventre women took part in butchering when "luck was unusually good and many buffalo had been killed" (1908:149). A Gros Ventre informant of Flannery stated that she gradually acquired knowledge of butchering techniques for various animals after she was married (Flannery 1953:158-159). Among the Blood Indians, according to an informant interviewed by Dempsey, each buffalo was butchered by and divided among six people when the pis´kun hunting method was used: "One would take the heart and shoulder; another the loin and part of the inards; another the flank and ribs; another a hindquarter, paunch and fat; another a hindquarter and entrails; and another the remainder . . . each time a different portion was taken by each person" (1957a:2).

A man and woman working together could butcher a buffalo in approximately one hour (Ewers 1955:160). Wissler (1910:42) reported that the time it took a single hunter to butcher a buffalo was also brief; elderly Blackfoot informants interviewed by Wissler (ibid.) claimed to have been able to butcher five to twelve buffalo in a day without assistance.

The method of butchering employed on a given occasion could be determined by a number of factors, including the number of buffalo killed, the distance of the kill from camp, the number of pack animals available, and the purpose for which the hide of the animal was intended. In some cases, only the tongues, considered a delicacy, were removed from the carcasses. A late eighteenth century North West Company fur trader, Daniel Harmon, recorded the following general description of the Plains Indians' method of butchering a buffalo:

> The Natives generally cut up the body of an animal into eleven pieces, to prepare it for transportation to their tents, or to our forts. These pieces are the four limbs, the two sides of ribs, the two sinews on each side of the back bone, the brisket, the croup, and the back bone. Besides these they save and use the tongue, heart, liver, paunch, and some part of the entrails. (1911:287)

Writing on the butchering methods of the Blackfoot Indians, Wissler (1910:41-42) described two techniques, the use of which depended essentially upon the distance of the kill from camp. If the carcass was in or close to camp, the method spoken of as "heavy butchering" was employed.

> Buffalo were not bled, though when shot back of the shoulder they bled profusely at the mouth. Buffalo or other animals were improved by running before killing. In dressing, the skin was cut down the median line of the breast and worked loose. Then the carcass as it lay on the outstretched skin was disemboweled. The manner of its dismemberment depended on the distance from camp. Assuming that the carcass was in camp, the procedure for buffalo or deer was about as follows:-- The fore quarters were removed by cutting down through the shoulder joints. Then cuts were made at the shins. The hind legs were cut off and the quarters cut at the hip joints. The back-fat was removed in broad bands. The breast and belly were cut away in one piece; then the short ribs, eight on a

> side, in two pieces; also two similar pieces of neck ribs. The parts of the loin containing the kidneys were taken next. The "boss ribs" (hump) were stripped. If there was a feotus it was tied up with the "boss ribs." The back bone was cut into two pieces. A chunk of meat from the rump and one from the neck were taken. The heart, tongue, brain, paunch and small intestines were taken. Sometimes the hoofs and some of the head meat were also taken. The marrow from the leg bones was usually eaten raw during the butchering. While, at the present time cattle are butchered in this way, the scarcity of food compels the Indian to use every part of the carcass. (1910:41)

Under other circumstances "light butchering" was employed.

> "Light butchering" was the term applied to a method much used when the killing was far from camp or when several animals were to be transported by one or two horses. In this case, the loins were cut out of the quarters. Then these were tied in pairs as before. The back-fat was removed in two pieces, and tied so as to lay across the horse. The loins with the kidneys, the meat from the boss ribs, the heart, the tongue, breast and groin were taken as before. The flesh over the ribs was worked off in one piece. The paunch was emptied and the small intestines stripped. The whole was then packed in the skin on a horse as for the "heavy butchering." Thus, the bones were left behind. (ibid.:42)

This method was also used when meat was relatively plentiful, regardless of distance from camp or quantity of pack animals (Ewers 1955:160). According to Wissler, the only tool used by the Blackfoot when butchering was a heavy metal knife, although the bone of the fore leg "was often used as a club to break smaller bones and joints" (1910:42).

H. H. Turney-High recorded a description of the Kutenai's usual method of butchering, which according to one Kutenai informant, was indistinguishable from the Blackfoot method.

> Chief Kustata says that the Upper Kutenai butchered a bison carcass so much in the Blackfoot manner that scouts could not tell which people had done the work by examining the remains. Bull Robe says the method was as follows:
>
> Once the animal was skinned, the fat was carefully removed. The surface fat on the back was highly prized. The muscles of the back were then removed in one piece, if possible. This was considered the choice meat. The rib bones were then broken away from the vertebrae, removed from their flesh and discarded, except those wanted for making hide scrapers. The side meat was then removed in large strips. The legs were then cut off at the upper joints. Holes were punched in the hind quarters just above the knee to receive the thongs by which they were packed. These holes were higher up on the front legs. (1941:37)

According to the Kutenai informant Chief Kustata, the method of skinning the buffalo varied according to the intended use of the hide.

> If two hides were wanted, which was the most common, incisions were made first along the spine, then along the ventral side. Next an incision was made all around the head, which was removed and discarded save for the prized tongue. The horns had no value.
>
> Incisions were then made around the legs above the cannon bone, and then up the insides of the legs to meet the cuts already made. The hide was then peeled off in two pieces. The stone knife was the only tool used.
>
> If a large single hide was wanted, say for a tipi cover, the dorsal incision was omitted. (ibid.)

The butchering method of the Plains Cree was summarized by Mandelbaum as follows:

> In butchering, the carcass was turned on its back and the head jerked to one side to prop it up. The hide was removed along one side then the head was tilted again and the skinning proceeded on the other side. The flayed hide was spread on the ground the meat heaped on it. The long sinews from the backbone and the shoulder were carefully extracted. The limbs were dislocated and cut off. A cut was made along the backbone and the ribs chopped off. (1979:58)

A trader, Henry Boller, recorded a brief description of the method of skinning and butchering used by the Indians of the Upper Missouri River area, for whom buffalo hides were an important item of trade during the nineteenth century.

> . . . the hunter splits the skin down the back and twisting the fingers of his left hand in the long hair of the hump, pulls the robe toward him while he rapidly cuts the tissue with his knife. An Indian will skin a buffalo very rapidly, but always leaves more or less flesh adhering to it, which has to be removed by the women before dressing it. The meat is cut away from the bones in large pieces, some of them weighing over a hundred pounds. The two sides of ribs are taken off and tied together by a cord to balance each other on the saddle.
>
> The tongue, heart, kidneys, liver, paunch, marrow-guts, boudin, and brains, being esteemed great delicacies, are carefully saved. When there is plenty of meat the large bones and coarse pieces are always thrown aside, but in times of scarcity there is absolutely nothing left but the head. Even the blood is regarded as a luxury and saved. (1959:233-234)

The buffalo meat and hides were distributed according to the regulations of the tribe (McHugh 1972:86). Accounts of pound and jump methods of buffalo hunting indicate that the kill was usually apportioned fairly among the people by an individual appointed to perform the task, although the shaman sometimes received choice portions as gifts of thanks for his services during the hunt. According to Ewers, when the Blackfoot used the corral method: "Each man who killed a buffalo was given its hide and ribs. The slaughtered animals were cut into quarters which were divided among the families in the camp. Each family, whether it was large or small, received an equal share" (1958:13). When the chase or surround methods were used by the Plains Indians, a dead buffalo usually belonged to the man whose specially marked arrow was found in the carcass, but the kills were generally shared generously with the less fortunate members of the tribe, such as the aged and those poor in horses.

Among the Assiniboine, the tongue, hide and the four choicest cuts of meat were the property of the man who killed the animal, while the rest of the carcass belonged to those who skinned it. The tongues and some portions of meat were sometimes given to the Soldiers who policed the hunt, and the old and feeble were supplied with meat after it had been transported back to camp (Denig 1930:456, 531-532). Ewers (1958:82) noted that charity toward the unfortunate was an important social responsibility of the hunters; stinginess was detested by the Blackfoot people.

PACKING AND CACHING THE KILL

PACKING

After the animals had been skinned and butchered they were packed and transported to camp, usually by the women, sometimes assisted by their children. The hunters themselves packed the kill only when a hunt had taken place a considerable distance from camp, which was sometimes the case when the surround or communal chase hunting methods were used. Meat was packed and transported on the Indians' backs, or pulled along behind them in a sack-like contraption, pulled on travois by dogs or packed on the backs of horses. Catlin, after witnessing a communal hunt on horseback by the Hidatsa Indians of the Upper Missouri River area, noted that the meat was mainly carried by women and children, although some horses and dogs were used.

> . . . some hundreds of women and children, to whose lots fall all the drugeries of Indian life, started out upon the trail, which led them to the battle-field, where they spent the day in skinning the animals, and cutting up the meat, which was mostly brought into the villages on their backs, as they tugged and sweated under their enormous and cruel loads. (1841, Vol. 1:201)

Catlin was impressed by the industriousness displayed by the Indians as they transported the meat to camp.

> I rode to the top of a beautiful prairie bluff, a mile or two from the scene, where I was exceedingly amused by overlooking the route that laid between this and the village, which was over the undulating green fields for several miles, that laid beneath me; over which there seemed a continual string of women, dogs and horses, for the rest of the day, passing and repassing as they were busily bearing home their heavy burthens to their village, and in their miniature appearance, which the distance gave them, not unlike to a busy community of ants . . . (ibid.:202)

The meat could also be dragged home. Writing on the Assiniboine, Kroeber remarked, "When a buffalo was killed, half the skin was sometimes stitched or tied into a sack, the meat put into it, and the bundle dragged home by a rope around the shoulders of a person. In other cases the meat would be tied into bundles and carried home on the shoulders" (1908:149). Blood Indian George First Rider, interviewed by researchers at the Provincial Museum of Alberta, provided the following description of how his ancestors packed and transported meat:

> The buffalo that the man killed he cut the hide at the belly part and he cut holes around the edge then he cut a strip of the hide and he laced the hide with it and that is where he packed his meat he pulled on the thong and tied it so that's his pack. Ribs are stripped he cut them from underneath, he inserts what he had peeled off into the holes and he drags the pack by that, there were no horses to pack their meat on. (1969b:11)

When horses were used to transport the kill, the meat was packed essentially as described by the zoologist Tom McHugh, "To ready a butchered buffalo for transport, a hunter spread out the hide and piled the cuts of meat on it; then he wrapped everything into a bundle and loaded it onto the horse" (1972:86).

Wissler provided a more detailed description of the method of packing meat on a horse practiced by the Blackfoot when camp was nearby and heavy butchering was done.

> Fresh skin was laid on the horse's back, the head piece toward his head. A strip of the hide was slipped through under the tendons of the fore quarters so they could be hung across the horse. The hind quarters were tied together by their own tendons and treated in a similar manner. The short ribs and the large pieces from the breast and belly were rolled up. The neck ribs, heart, tongue, back-fat, etc., were made up into bundles and placed on the horse. The tail end of the skin was then turned up over the pack of meat. (1910:42)

When light butchering was done, the meat portions taken were wrapped in the skin and packed on the horse; the bones were left behind (ibid.).

There seems to have been some variation in Blackfoot packing methods related to heavy butchering. Wissler's information above indicates that one buffalo was carried by each horse. According to an informant of John Ewers, however, the weight of a butchered buffalo cow was too great a burden for one horse; therefore, two horses were used and the meat was packed in the following manner:

> Informants claimed it required two pack animals to carry the meat of a buffalo cow that had been subjected to "heavy butchering." Mrs. Cree Medicine described the method of packing employed by members of her family. One pack animal carried only the four quarters of the animal. The tendons of the forequarters were tied together with a piece of rawhide and they were thrown over the pack saddle so that one quarter fell at each side of the pack animal. The hind quarters were slung in the same way. The hide was thrown over the back of a second pack horse, the two slabs of back fat were folded over this, and the ribs were tied with rawhide cord and added to the load. Then the two flanks were tied together and placed on the horse. A hole was punched in the boss ribs through which a cord was passed and tied to the pack. Next the hipbones were packed, and the neck was cut away from the head, split open from the bottom, and spread out over the top of the load. Finally the edges of the robe (at the bottom of the pack) were raised and tied together to hold the pack securely. The woman generally wrapped the entrails in a separate bundle and carried it herself. A buffalo cow averaged 400 pounds of meat produce. Thus it would have been too great a burden to consign this entire weight to a single Indian pony. However, informants said that when "light butchering" was resorted to a single packhorse could carry the load. Thus the number of pack animals available to the hunter often was the determining factor in the choice of method of butchering and the total amount of food that he could salvage from a single chase. (Ewers 1955:160)

The comments of Henry Boller, below, suggest that the Upper Missouri River tribes at times used only one packhorse per one and a half carcasses when the distance to be travelled was not great:

> The horses are next to be packed. Half of the green skin is thrown over the saddle, then the heavy boneless pieces of meat, after which come the ribs and miscellaneous portions, and over all the remaining half of the robe. The meat and robe of a cow is considered a fair load for a horse, but I have often seen a cow and a half packed on when the distance was short, or a cow and a heavy man riding on top. This kind of work is very severe on both horses and men, for, starting early, they are generally a whole day in the cold without eating anything. (1959:234)

On the packing methods of the Plains Cree, David Mandelbaum reported, "The meat and marrow bones were folded in the hide, the internal parts wrapped separately, and all taken back to camp" (1979:58). According to McHugh (1972:86), when the dog travois was used by the Plains Indians, a quarter of a carcass or one hide was loaded onto each travois frame and secured with a rawhide rope.

CACHING

The meat was cached if a hunting party could not pack all the meat of a kill at one time, or when those in camp wished to preserve some meat only temporarily. The methods of caching varied with the season, according to trader Edwin Denig, who described the caching methods of the Assiniboine.

> In the summer if several animals are killed, the meat is placed in a pile covered with the hides, and a portion of the hunter's clothing left on it, the scent of which prevents the wolves from coming to it. Occasionally the bladder of the animal is inflated, small pebbles put in, which being tied to a stick and stirred by the wind, will keep off the wolves and foxes.
>
> But in the winter the usual way is to bury the meat in the snow which effectually prevents the wolves from eating it, as they have no power of smell through a foot of snow. Meat can be left in this way in perfect security for a month or more, but they usually return with their dogs and take it away the next day. (1930:535)

David Mandelbaum described the caching methods of the Plains Cree.

> When there was a surplus of meat, a tipi-like storehouse was built. The three foundation poles were braced by lashing cross poles to the legs of the tripod. Upon this frame poles were laid in close order, covered with brush, and weighted with stones. Platform caches were constructed by utilizing the forks of two trees and two forked uprights. Poles were laid across these supports and on them a rectangular flooring was laid. Meat placed atop this structure was safely out of the reach of dogs and children.
>
> Pit caches were excavated in hillsides. The bottom of the pit was lined with grass over which a flooring of sticks was laid. The meat was piled into the cache, covered with grass, and earth was heaped over the mouth of the pit. (1979:59)

These methods were only temporary measures, however. If the Indians wished to preserve meat for several months other preservation techniques were employed, which are described in the following section.

MEAT PROCESSING

Several parts of the buffalo were enjoyed raw by the Plains Indians and were often consumed during the process of butchering. These parts included the liver, kidneys, tongue, eyes, testicles, belly fat, parts of the stomach, gristle from the snout, marrow from the leg bones, the brains, the tissue from the uterine sac of unborn calves, and the nipples of cows (Denig 1930:531, 581; Ewers 1958:73; Grinnell 1893:205; Mandelbaum 1979:58; McHugh 1972:85). The warm blood of the newly slain animal was also sometimes drunk after the slaughter (Kidd 1937:108; McHugh 1972:85; Mandelbaum 1979:58). The Plains Cree hunters drank the blood so that they would not be disturbed by the sight of blood in battle (Mandelbaum, ibid.). The old and ailing among the Blackfoot and Plains Cree relished the milk from the teats of dead cows (Mandelbaum, ibid.; Ewers 1958:73). Older Blackfoot men would eat raw buffalo testicles, believing the food made them virile and healthy. The cheese-like contents of intestines from newborn calves were considered a delicacy by elderly Blackfoot men and women (Ewers, ibid.). According to McHugh (1972:85-86), when the Plains Indians were on war parties and did not wish to draw attention to themselves by lighting a fire, they would make a pudding of marrow and brains in a bowl of buffalo ribs and wash it down with buffalo blood.

The women usually began cooking fresh buffalo meat as soon as it had been brought to camp. According to the Blood Indian George First Rider, the meat from the butchered buffalo was sorted by the hunter's wife as she unpacked the kill.

> The woman sorts out the meats they all have names, she will tell her husband here they are I am through sorting them out, the man calls the name of the meat that he wants to eat he tells his wife cook some of that meat, boil some of it. The people all sat listening, the woman started to boil the meat, she boils the meats that her husband told her to boil . . . (1969b:12)

Methods of cooking fresh meat varied from tribe to tribe and included roasting, boiling, stewing and smoking (McHugh 1972:91). According to Ewers (1958:73), Grinnell (1893:205) and Wissler (1910:24), the Blackfoot essentially used two of these methods - boiling and roasting. Grinnell described these methods as follows:

> As a rule, there were but two ways of cooking meat,--boiling and roasting. If roasted, it was thoroughly cooked; but if boiled, it was only left in the water long enough to loose the red color, say five or ten minutes. Before they got kettles from the whites, the Blackfeet often boiled meat in a green hide. A hole was dug in the ground, and the skin, flesh side up, was laid in it, being supported about the edges of the hole by pegs. The meat and water having been placed in this hollow, red-hot stones were dropped in the water until it became hot and the meat was cooked. (1893:205)

On the cooking methods of the Blackfoot, Wissler made the following remarks:

> While meats were preferred boiled, there were other methods in common use. According to Henry [Coues 1897:724] meat was often roasted on a spit or broiled on coals. Our information indicates this to be true, especially in the case of ribs. The large intestine, cut in sections and dried, was broiled over coals, and occasionally sections of the smaller intestines, blown up with air and tied at the ends, were prepared by broiling over a fire. Again, a section of the large intestine was filled with blood and fat, the ends tied and the whole roasted by covering with hot ashes. It was turned about and tested from time to time with a pointed stick. . . .
>
> A method of cooking in a hole was sometimes used for meats. At the time of the buffalo drive, a hole might be dug in the ground, many hot stones placed in the bottom and over these a layer of willow branches and grass. Next, a layer or two of feotal and newly born calves over which again were spread branches, grass and finally earth. This was spoken of as a dry cook. The hole was usually filled in the evening and by the following day it would be ready to

> uncover. A variation of this was similar to the mode of roasting camas. A hole was dug to the depth of four spans of the thumb and fore finger and lined with hot stones and brush as before. Dressed calves were wrapped in fresh hides, two hides spread over the brush, water poured in, the calves quickly placed and the whole covered with two more fresh hides. The upper hide was stretched and staked. Then earth was heaped over all and a fire kindled on top. (1910:24-25; brackets mine)

Soups, particularly blood soup, were an important part of the diet of the Blackfoot and other Plains tribes (Bradley 1923:260; Ewers 1958:73; Mandelbaum 1979:59; McHugh 1972:91-93; Wissler 1910:26-27).

> Boiling seems to have been the favorite Blackfoot method of preparing food and they were especially fond of soups. The preparation of such food necessitated cooking vessels of some sort. It is not certain that the Blackfoot ever made pottery, though some individuals claim such information to have been handed down to the present generation. An old woman had heard that cooking pots were once made of pulverized rock and some sticky material. She never heard of pots hollowed out of stone. A man had heard that pots were made a long time ago. They were fashioned of mud and sand. A bag of rawhide was filled with sand, greased on the outside and the pot shaped over it. The sand was then poured out and the bag withdrawn. The pot was filled with fat and hung over the fire to harden. When finished, it was tested by boiling water in it. Such pots grew gradually harder with use. They were supported by a rawhide cord passing around the rim. The cord had to be changed often. He also heard that pipes were formerly made of clay and hardened by holding over the fire. During this operation they were always kept rubbed with fat. Aside from these narratives, there is no evidence that pottery was made by the Blackfoot. That these statements may represent intrusive traditions is suggested by their seeming parallels among the Gros Ventre and certain striking agreements with processes employed by the Mandan and other village Indians. Ever since the advent of the fur trade, they have used kettles of iron, copper and brass. In the tipis, these kettles were formerly hung from tripods of wood by a wooden hook. In later years, a single rod with a curved top, ending in a hook, was in general use.
>
> Methods of boiling without pottery vessels were known and practised. Men on war parties or other expeditions of hazard prepared their meals in such manner as conditions permitted, but, as one informant expressed it, it was difficult to get on without some kind of soup, especially blood soup. . . . Old people, women as well as men, frequently testified that such soup was best when prepared by the methods used on war or hunting parties. This method was to boil in a fresh hide or paunch by means of hot stones. . . .
>
> In this case, four sticks about 40 cm. in length were driven into the ground on a radius of about 15 cm. Near the top of each stake was a kind of catch, or notch, the but of a projecting twig or branch. The

> fresh paunch of a cow was brought out, a slit cut in the edge with a knife and thrust down over one of the stakes. A second slit was cut near this one, the edge of the paunch given a twist and slipped over the stick once more. In a similar manner, the edge of the paunch was adjusted to the other stakes at such points as gave it the form of a bag. The form of this bag was then improved by the addition of two other stakes similar to the four first placed. The bag was still a little too loose but was quickly adjusted by turning an edge over the top of a stake. The rough surface of the paunch was on the outside. A stone about the size of an egg was placed gently in the bottom of the bag which now just touched the ground. The demonstrator said that it would boil quickly if the bottom touched the ground and that the stone served to keep the bag in place. About a quart of blood with an equal amount of water was poured in. In the meantime, a number of stones had been heated in a fire of wood and cow chips. A stick about 60 cm. long with a forked end and a stick similar to those supporting the paunch were used to carry the hot stones. From time to time, these were gently slid into the soup which was stirred with the shorter stick. The cook tested the mess now and then, by licking the end of the stirring stick. When the soup threatened to boil over, a little water was poured into it. It was stated that other kinds of soup were made in such a vessel, as berry soup and common meat soup.
>
> When a paunch was not at hand a fresh hide might be used in the same manner, though the usual procedure was to depress it into a hole in the gound. The edges of the hide were held in place by stakes, but if these were not at hand stones were laid around to hold it by their weight or, if there were several in the party, knives were stuck through the hide after the manner of stakes. The hide was used for boiling meat, the paunch rarely for anything but soup.
>
> According to one informant, should the buffalo be killed in a sheltered spot, the entrails would be removed, the carcass turned on its back with blood and fat in the cavity, a little water added and hot stones dropped in, thus producing a rich soup within the carcass itself. This, however, seems to have been an unusual method. (Wissler 1910:26-27)

According to Grinnell (1893:203), the Blackfoot often used berries to flavour their soups (cf. Bradley 1923:260; Ewers 1958:73). Blackfoot informants of Kenneth Kidd (1937:108) stated that the rump made the best soup, although the head (cut and pounded into pieces), the bones and dried stomach could also be used satisfactorily.

Grinnell recorded how the Cheyenne Indians cooked blood in such a way that it became a hard, jelly-like dish, rather than soup.

> The Cheyennes cooked blood in the rennet of the buffalo. They built a good fire, and when it had burned down to coals, a bed of hot ashes was raked out in front of the fire; the rennet was filled with

> blood, and tied with sinew at the small end; it was placed on the hot ashes, and the woman who was cooking it tapped it constantly with a stick, and rolled it over and over in the ashes until the blood boiled and cooked. After it had been cooked some little time, she tested it every now and then, pulling it out of the ashes, and pricking it with a small and very sharp stick. If blood ran out of the puncture, the cooking was not complete, and it was put back again. At length, when no blood followed the pricking, the rennet was pulled out, opened, and the cooked blood eaten. It was no longer fluid, but was hard, like jelly. (1923, Vol. 1:255)

A roasted preparation considered a great delicacy by the Blackfoot Indians was known as "Crow-Indian-Guts" or "Crow-Guts", and was described by Ewers (1958:73), First Rider (1969b:15), Grinnell (1893:205) and Wissler (1910:25). According to Wissler: "A section of the small intestine was cleaned and drawn over a long strip of meat, the ends tied and the whole held over the coals supported by a stick. Care was required to keep the intestine from bursting and permitting the juices of the meat to escape" (1910:25). Another buffalo delicacy relished by the Blackfoot and several other northern tribes was the boiled flesh of an unborn calf (Boller 1959:236; Fidler: February 10, 1793; Grinnell 1893:205; McHugh 1972:93). While wintering with the Piegan Indians, Peter Fidler noted that, in late winter, cows were killed primarily for their foetuses (February 10, 1793).

Other buffalo portions and preparations considered delicacies by the Plains Indians included the tongue, nose, heart, liver, hump (or boss) ribs, a strip of fatty tissue along the crest of the hump, and bone marrow (Boller 1959:235-236; Flynn 1908:245; Grinnell 1893:205; Grinnell 1923, Vol. 1:255; Kane 1925:56; Mandelbaum 1979:58). The Blackfoot obtained and prepared bone marrow by pounding the bones, boiling them in water, and then allowing the vessel to cool. The fat came to the surface in a layer three or four inches thick and was then taken off and deposited in sacks of buffalo skin. This delicacy was eaten with meat or a mixture of pounded meat and berries, and was usually eaten only at feasts (Bradley 1923:260). Among the Plains Cree: "Large bones were split open and pounded with a maul. The crushed splinters were placed in boiling water; the grease that rose to the surface was skimmed off with shell spoons and stored in buffalo paunches - It was called oskanpimi (bone grease)" (Mandelbaum 1979:58).

Some of the butchered buffalo meat from a hunt was usually preserved to provide the Indians with food at times when fresh meat was not available. This was especially important during the fall, to prepare for the winter months when successful hunting was sometimes difficult. According to Ewers: ". . . large quantities of the lean flesh were cut into long, thin strips and dried in the sun on racks of poles. The dried meat was packed in rawhide envelopes known as parfleches. Layers of the dried meat were separated by layers of uncooked back fat, wild peppermint, and berries" (1958:73-74).

If the weather was inclement the Blackfoot hung the meat on lines or scaffolds in the upper part of their lodges (Grinnell 1893:205). According to Mandelbaum (1979:58), the Plains Cree erected scaffolds over the fires inside their tipis during bad weather. When properly dried and of good quality, the sheets of meat were about one quarter of an inch thick and very brittle (Grinnell 1893:205-206). According to Grinnell (1893:206) and Kidd (1937:110-111), the back fat of the buffalo could also be dried and was eaten with the meat as a substitute for bread (Kidd, ibid.). Dried meat weighted approximately one sixth as much as fresh meat and was therefore convenient to carry. Because it was tough, the Indians usually preferred to roast or fry pieces of dried meat before eating them (McHugh 1972:88-89).

The Native pemmican making process has been called "one of the most effective methods of food processing ever devised" (McHugh 1972:89). Methods for making pemmican varied slightly among the Plains Indians, but the basic steps were essentially the same (ibid.). Grinnell described the Blackfoot method of making pemmican as follows:

> Pemmican was made of the flesh of the buffalo. The meat was dried in the usual way; and, for this use, only lean meat, such as the hams, loin, and shoulders, was chosen. When the time came for making the pemmican, two large fires were built of dry quaking aspen wood, and these were allowed to burn down to red coals. The old women brought the dried meat to these fires, and the sheets of meat were thrown on the coals of one of them, allowed to heat through, turned to keep them from burning, and then thrown on the flesh side of a dry hide, that lay on the ground near by. After a time, the roasting of this dried meat caused a smoke to rise from the fire in use, which gave the meat a bitter taste, if cooked in it. They then turned to the other fire, and used that until the first one had burned clear again. After enough of the roasted meat had been thrown on the hide, it was flailed out with sticks, and being very brittle was easily

> broken up, and made small. It was constantly stirred and pounded until it was all fine. Meantime, the tallow of the buffalo had been melted in a large kettle, and the pemmican bags prepared. These were made of bull's hide, and were in two pieces, cut oblong, and with the corners rounded off. Two such pieces sewn together made a bag which would hold one hundred pounds. The pounded meat and tallow--the latter just beginning to cool--were put in a trough made of bull's hide, a wooden spade being used to stir the mixture. After it was thoroughly mixed, it was shovelled into one of the sacks, held open, and rammed down and packed tight with a big stick, every effort being made to expel all the air. When the bag was full and packed as tight as possible, it was sewn up. It was then put on the ground, and the women jumped on it to make it still more tight and solid. It was then laid away in the sun to cool and dry. It usually took the meat of two cows to make a bag of one hundred pounds; a very large bull might make a sack of from eighty to one hundred pounds. (1893:206-207)

This was apparently the type of pemmican most typically made by the Blackfoot Indians (Kidd 1937:108). The meat could also be mixed with dried berries and pounded chokecherries (Ewers 1958:74; Grinnell 1893:207; Kidd 1937:110; Mandelbaum 1979:58; McHugh 1972:90; Wissler 1910:22; Wissler 1974:28). When berries were added by the Blackfoot, they always used the choicest parts of the buffalo (Grinnell 1893:207). This type of pemmican was known as "saksi-sakima" among the Blackfoot (Kidd 1937:110). According to Wissler (1974:28-29), berry pemmican was the most characteristic type of pemmican used on the Plains.

Pemmican could be eaten dry or stewed with water (Grinnell 1893:207). One pound of pemmican contained the nourishment of three to five pounds of fresh meat, depending upon the proportion of fat to meat used (McHugh 1972:89; Wissler 1910:23). Plain pemmican could last indefinitely if made correctly with lean meat. The meat was protected from the moisture of the air by its coating of fat and rawhide container and apparently could be kept for as long as thirty years. When berries were added, however, it spoiled sooner (McHugh 1972:90). The virtues of pemmican made it a very useful type of food supply, not only for the Indians but also for the fur traders, and it became an important item of trade for many Plains tribes. The Blackfoot supplied a great deal of pemmican to traders (Lewis 1942:28-29; Wissler 1910:24).

The Plains Indians apparently lived according to a feast or famine economy (Ewers 1955:168-170). When buffalo meat was plentiful the Indians often ate only the choice parts of the animals, but, when the food supply was dire, the Indians utilized every part of the buffalo from which any amount of nourishment could be obtained.

After a successful hunt the Indians usually preserved some meat for times when fresh meat was scarce, which occurred most often during the winter months. But they did frequently find themselves on the brink of starvation, and at such times they used all of the edible parts of any buffalo they were able to kill. The American trader Henry Boller observed of the Indians of the Upper Missouri River area, "When there is plenty of meat, the large bones and coarse pieces are always thrown aside, but in times of scarcity there is absolutely nothing left but the head" (1959:233-234). The Indians even cooked the hide of the animal at times, occasionally because they desired it, but usually out of desperation (McHugh 1972:94). Grinnell recorded the following description of one way by which the Cheyenne cooked a buffalo hide:

> One way of cooking it was in a saucer-shaped depression dug in the ground, and lined with grass or leaves, on which were spread out large pieces of the fresh hide. Over the hide were two or three layers of green leaves, and on the leaves were placed a number of ribs or other flat bones to hold the leaves down. A layer of about four inches of clay was spread over this and was pounded down solidly and smoothed off, and on this floor of clay was built a large fire of dry wood which was kept burning for three or four hours. Then the fire was swept aside, the clay, bones, and leaves were removed, and the hide taken out. The hair slipped off easily from the hide, which was quite tender and very good. (1923, Vol. 1:255-256)

One measure some women took against starvation was to dry and save the scrapings from the hides they tanned (Grinnell 1923, Vol. 1:256; McHugh 1972:94). On the measures taken by Blackfoot women against starvation, Ewers stated: "In hard winters when supplies of dried meat and pemmican were exhausted and other food was not available, even the grease-soaked pemmican sacks were eaten. The white under-scrapings of buffalo hides also were softened in boiled water into a pasty food which tasted something boiled potatoes" (1958:74).

Buffalo meat was apparently considered to be vastly superior to beef not only by the Native Indians but also by Euro-North Americans and Europeans. John Palliser recorded the following anecdote of an incident on the Upper Missouri River which illustrates this point:

> Old Mr. Kipp, at Christmas, thinking to give all the employés and voyageurs of the Furr Company at Fort Union a great treat, had for some time previously been fattening up a very nice small-boned heifer cow, which was killed in due time, in prime condition. All who had been reckoning on the treat this would afford them, sat down in high expectation of the ensuing feast; but after eating a little while in silence, gradually dropped off one by one to the bison meat which was also on the table, and were finally unanimous in condemning the beef, which they said was good enough, but nothing remarkable, and the fat sickening. A plate-full of it was also given, as ordinary buffalo beef, to an Indian woman in another room at the Fort, on the same occasion; she pronounced it good food, but said she, "it is both coarse and insipid," and the fat, if she were to eat much of it, would make her sick.
>
> I mention these circumstances, having been one of the very few who have seen the comparative merits of the two meats tested by Europeans, Americans and Indians at the same time, and heard the unanimous verdict in favour of the wild bison. (1969:113-114)

This distinction between the quality of buffalo meat and beef must have made the disappearance of the buffalo and the subsequent necessity for reliance on beef rations an especially difficult transition for the Plains Indians.

USES OF THE BUFFALO IN MATERIAL CULTURE

The Plains Indians not only utilized all of the edible parts of the buffalo in their diet, they also displayed great ingenuity in using portions of the buffalo to fashion items of material culture. The most utilized part of the buffalo was the hide, which furnished the Indians with clothing and shelter as well as other items such as stirrups, rattles and shields. The Indians also made good use of the other nonedible parts of the buffalo, including the ubiquitous buffalo chip.

Based on information he gathered during field studies, John Ewers (1955:150-151) provided a list of no less than 87 items fashioned from buffalo by the Blackfoot Indians during the nineteenth century (Table 2). These represented only those items mentioned by Blackfoot informants, and Ewers estimated that "a more exhaustive search for rare usages probably would increase this list of some 87 items to more than 100" (1955:149). This list dramatically illustrates the Plains Indians' dependence upon the buffalo as well as their great ingenuity in utilizing the animal to the fullest potential in their culture. The following sections provide more details of the Plains Indians' uses of the buffalo in material culture.

USES OF THE HIDE

The uses of buffalo hide generally varied with the seasons. During the spring and summer, the hides were thinner than they were in winter; they were depilated and used for making tipi covers and many smaller articles such as parfleches, moccasins soles, leggings, ropes, light-weight clothing and bedding, body armor, ceremonial masks, snowshoes, saddles and harnesses (Douglas 1930:27; Ewers 1955:152; Flannery 1953:54; Grinnell 1893:227; McHugh 1972:97). During fall and winter, when the hair of the buffalo was long, hides generally were used with the hair intact to make items such as bedding, winter moccasins, gloves, floor coverings, buffalo disguises used in hunting, and ceremonial costumes (Douglas 1930:27; Ewers 1955:151-152; Flannery 1953:54-55; McHugh 1972:97).

Table 2

Nonfood Uses of the Buffalo in Blackfoot Material Culture (Ewers 1955:150-151)

Clothing:

- Winter robes, for both sexes (hair lined).
- Winter caps, with earlaps, for both sexes (hide with the hair).
- Winter moccasins, for both sexes (hair lined).
- Winter leggings, for both sexes (skin, tops of old lodges).
- Winter mittens, for both sexes (hair lined).
- Winter shirts, for boys and men (skin, tops of old lodges).
- Winter coats, for boys and men (hide with the hair).
- Winter dress, girls and women (skin, tops of old lodges).
- Short winter cape, for girls and women (hair inside).
- Winter "underpants" for girls and women (calfskin).
- Spring moccasins, for both sexes (tops of old lodges).
- Hock moccasins (from rear legs, worn by war party members whose supply of moccasins were worn out).
- Moccasin soles, both sexes (rawhide, used especially for repairing soft-soled moccasins).
- Belts, both sexes (rawhide).
- Breechclothes, males (tops of old lodges).
- Headdress ornaments (hair and horns).

Lodge and furnishings:

- Lodge covers (cowskin).
- Lodge doors (cowskin).
- Lodge linings (cowskins).
- Bed covers (robes, with the hair).
- Lodge ornaments (hair and tail).

Weapons:

- Shields (rawhide, from bull's neck).
- Bow backings (twisted bull sinew).
- Bow strings (twisted bull sinew).
- Arrowhead and feather wrappings (sinew).
- Powder flasks (horn).
- Cover and hafting of stone-headed warclubs (rawhide).
- Ornaments for clubs (hair or beard).
- Knife sheaths (rawhide).

Tools, utensils, and crafts media:

Arrow straighteners (boss rib).
Fleshing tools (tibia and part of femur).
Meat and berry pounders' hafting (rawhide).
Mauls' hafting (rawhide).
Emergency kettles (rawhide).
Water buckets (paunch).
Spoons (horn).
Cups (horn).
Ladles (horn).
Fuel (dung).
Fly brushes (tail on stick).
Glue, used in arrow making (boiled phallus).
Skin softening agents (brains, fat, and liver).
Thread (sinew, occasionally rawhide).
Pipe-polishing medium (fat).
Paint-mixing medium (fat).
Paint brushes (hip bone or shoulder blade).
Quill flattener (horn).
Tool for dehairing rope (skull).

Riding and transport gear:

Frame-saddle covering (rawhide).
Pad-saddle covering (soft skin).
Pad-saddle stuffing (hair).
Saddle-rigging straps (rawhide).
Stirrup coverings (scrotum or rawhide).
Martingales, simple form (rawhide).
Cruppers, simple form (rawhide).
Parfleches (rawhide).
Rectangular saddlebags (rawhide).
Cylindrical saddlebags (rawhide).
Double-bags (rawhide).
"Gros Ventres bags" (soft skin).
Tobacco pouches (calfskin).
Berry bags (unborn calfskin).
Bridles (rawhide or hair).
Honda ring (horn).
Hackamores (rawhide).
Lariats (rawhide).
Picket ropes (rawhide).
Hobbles (rawhide).
Saddle blankets (skin or robe).

Riding and transport gear (continued):

Saddle housings (robe).
Travois hitches (rawhide).
Pole hitches (rawhide).
Miscellaneous tie strings (rawhide).
Horse blankets (robe, or top of old lodge).
Horse-watering troughs (rawhide).
Horseshoes (rawhide).

Recreational equipment:

Boys' sleds (rib runners, skin seat).
Girls' sleds (large pieces rawhide).
Ball stuffing (hair).
Hoop and pole game hoop netting (rawhide).

Ceremonial and religious paraphernalia:

Sun Dance altars (skull).*
Bindings for Sun Dance lodge rafters (strips of hide with hair).
Rattles (hoofs and rawhide).
Horse masks (skin and horn).
Winding sheets for dead (skin or robe).
Beaver bundle headdress (hide with hair).
Matoki (Woman's Society) headdresses (hide with hair).

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* According to Spier (1921:471), the Blackfoot did not use a buffalo skull in the Sun Dance altar, although it was the custom of several other tribes.

Two types of prepared hide were used--tanned hide and rawhide. Preparing hide for use involved a series of processes, each process being distinguished by the tools and techniques used (Ewers 1945:10; McHugh 1972:95). All of the Plains Indians dressed skins in an essentially similar manner, although there were variations in tanning substances used and the time taken to do the task (McHugh 1972:95). According to one myth, the Piegan were originally known as the Apikuni, which means "Scabby Hides", because at one time the women did not tan their hides properly and left dried bits of meat and hair attached to them (Dempsey 1978:8-9). John Ewers reported the skin dressing process used by the Blackfoot tribes; when a rawhide finish was desired, the following steps were involved:

> Fragments of tissue and fat mixed with blood still adhered to the inner side of a buffalo hide after skinning. The woman's first task was to remove this matter by a process known as fleshing. She stretched the hide out on the ground, hair side down, and drove lodge pins through it at intervals around the edge to hold it in place. She knelt on her knees over the hide and hacked away the undesirable matter with short, vigorous blows of a sharp-toothed, fleshing tool held in her right hand.
>
> Then, after the hide had cured and bleached in the sun a few days, she took an adze-like tool and scraped the inner surface of the hide to an even thickness. She stood on the hide, leaned over, and chipped away the surface by moving her sharp-bladed tool much as a skilled carpenter uses a plane. When she was satisfied that the inner surface of the hide was smooth and even, she turned it over and removed the hair from the outside with the same tool. Some women preferred to take the hair off with blows from a rock instead of with the scraping tool. However, if the hide was to be used for a robe the hair was left intact.
>
> If the hide was to be made into rawhide articles, such as packing cases, saddle covers, moccasin soles, or ropes, this completed its preparation. (1945:10-11)

In addition to the material culture items listed above by Ewers, the Plains Indians used rawhide in making pouches, cups, buckets, dippers, kettles, hafting on mauls, rattles, drumheads, cradles, shields, bridles, lariats, stirrups, cinches, and other pieces of saddlery, horse masks, knife sheaths, bullet pouches, belts, thread, horse-watering troughs, netting for hoops used in the hoop-and-pole game, and headdresses (Douglas 1930:27; Ewers 1955:150-151; Ewers 1958:75; Grinnell 1893:227; McHugh 1972:99; Wissler 1974:67-70). Rawhide was very strong and tough and shrank dramatically as it dried. Consequently, it was excellent for binding and could act as twine or glue. For example, newly processed (green) rawhide applied as a cover around a stone maul fitted into a forked wooden handle would tightly bind the stone and handle together as it dried (Ewers 1958:74; Kidd 1937:117; McHugh 1972:99-100; Wissler 1974:67).

If the hide was to be "soft-tanned" (or "soft-dressed") Blackfoot women performed the following procedures in addition to those for rawhide preparation:

> The woman rubbed an oily mixture of animal brains, fat and liver into the hide with her hands. Then she worked it over with a smooth stone, the heat from which further distributed the oil through the hide. The hide was placed in the sun to dry, then saturated with warm water and rolled into a bundle. By this time the hide had shrunk in size, and it became necessary for the woman to stretch it by pulling with her hands and feet.
>
> Finally, the skin was softened by breaking down the tissues through rubbing the surface vigorously with a rough stone and sawing it back and forth through a loop of twisted rawhide tied to the under side of an inclined lodgepole. The soft tanned hide was then ready for use. (Ewers 1945:11-12)

Because buffalo hides were bulky and heavy, making them difficult to work with, they were often cut down the center into two pieces and sewn together again after tanning (ibid.:12; Wissler 1910:62). In sewing, a bone awl was used to punch holes in the hide and sinew thread was passed through the holes (Ewers 1945:13). Soft-dressed buffalo hides with the hair intact were used as robes or bedding, or cut up to make hair-lined mittens, winter headwear, moccasins and ceremonial headdresses (Ewers 1958:75; McHugh 1972:75). Buffalo robes were an important item of trade for the Blackfoot and several other tribes during the nineteenth century (Lewis 1942:25, 29-30, 35), predominantly with the American fur trade companies; provisions were the main items of trade between the Blackfoot and Canadian traders during that period. Soft-tanned hide without hair was used in making such items as lodge covers and linings, lightweight bedding, moccasins, leggings, several articles of male and female clothing, various types of bags and pouches, saddle coverings, and winding sheets for the dead (Ewers 1955:150-151; Ewers 1958:75; Grinnell 1893:227; Lowie 1909a:12; McHugh 1972:97-98; Wissler 1974:71-75).

One of the most important uses of soft-tanned hides was for tipi covers, a function which required many hides. The number of buffalo skins used in making a tipi cover apparently increased in the horse period due to the greater ability to transport such a heavy object. According to Ewers (1955:307), Blackfoot traditions attribute six or seven cow skins to the tipis used during the pedestrian culture period. During the horse period, the size of the tipi varied with the size, and wealth in horses, of the family (Douglas 1931b:2). According to Grinnell (1893:198-199), an average Blackfoot dwelling contained eighteen cow skins and was about sixteen feet in diameter, although they could be as large as thirty cow skins (ibid.:187). Wissler (1910:100-114) stated that twelve to fourteen skins were regarded as necessary in the making of a Blackfoot tipi cover. Ewers (1958:92) noted that, during the nineteenth century, an average Blackfoot lodge weighed approximately one hundred pounds. According to Flannery (1953:71), Gros Ventre tipis consisted of from six to twenty-five skins, with the average tipi consisting of about fourteen to seventeen skins. Writing in general on the size of tipis used by the historic plains tribes, Douglas (1931b:2) estimated that the average tipi cover was made from ten to twelve skins and had a radius of eighteen to twenty feet. McHugh (1972:97) stated that the number of hides used to make the average tipi ranged from seven to twenty.

When the hide being tanned was intended for clothing, it usually received an additional final step in treatment, which consisted of smoking. This additional process enabled garments exposed to rain and snow to dry into a soft and supple state. The smell of smoke which permeated the skin was also considered a means of repelling mosquitos and moths (Ewers 1945:12).

> The Blackfeet smokehouse for skins was a simple structure built in the open. First a round hole was dug in the ground about a foot in depth and more than two feet in diameter. Over and around the hole was built a framework of arched willow sticks, their ends driven into the ground. When finished, the structure looked much like the typical Blackfeet sweatlodge. A large fire was built a short distance from the smokehouse. After sage and rotten cottonwood were placed in the hole, the largest coals were taken from the fire, thrown into the hole and covered with leaves. The fire inside the structure emitted very little flame but a great deal of smoke. Then the skins to be smoked were stretched, hair side inward, over the

> willow framework and pinned together so as to allow little room for the escape of smoke from the interior. A second layer of skins was placed over the dome-shaped structure. A woman carefully watched the smoking hides. When the top skins became very hot it was time to examine those underneath. If she found them a rich yellow-brown in color she knew they were thoroughly smoked. Care was taken that the skins did not smoke too long and became too dark in color. Usually it required a half day or longer to smoke skins by this method.
>
> Although many Blackfeet preferred white skins for their dress clothing, the smoked ones generally were used for their undecorated, everyday garments, since these skins were more serviceable. (ibid.:12-13)

Additional descriptions of tanning procedures were provided by Boller on the Hidatsa (1959:304-305), Denig on the Assiniboine (1930:540-541), Flannery on the Gros Ventre (1953:159), Kroeber on the Gros Ventre (1908:150) and the Arapaho (1975:26-27), Leonard on the Crow (1959:155), Lowie on the Crow (1922a:217-219) and Assiniboine (1909a:13-14), Mandelbaum on the Plains Cree (1979:59-60), McHugh on the Plains Indians in general (1972:95-96) and Wissler on the Blackfoot (1910:63-70).

Hide dressing was exclusively a woman's job and was one of the most important tasks performed by Plains Indian women (Ewers 1945:10-11; Flannery 1953:159; Leonard 1959:155; Mandelbaum 1979:59; McHugh 1972:94-95; Wissler 1910:63). A woman's worth was estimated by her output of processed hides (McHugh 1972:94-95; Wissler 1910:63). The great amount of time and work involved in dressing a hunter's collection of hides after a hunt is often cited as one of the reasons why successful Blackfoot hunters usually took several wives (Ewers 1945:10).

USES OF THE HOOFS AND HORNS

The Plains Indians often used the hoofs of the buffalo as rattles; for example, the Blackfoot strung the hoofs on rawhide cords for this purpose (Ewers 1958:75). The Indians also boiled the hoofs to make glue (Flynn 1908:245; Grinnell 1893:227-228; McHugh 1972:105), which was used by the Blackfoot to fasten the heads and feathers on arrows, and sinew on the backs of bows (Grinnell 1893:227-228).

The horns of the buffalo were cleaned, polished and used to hold tobacco, medicines and gun powder (Denig 1961:13; Douglas 1930:27; Ewers

1955:150; Ewers 1958:75; McHugh 1972:105). They were also fashioned into spoons, ladles, drinking cups and sometimes small dishes (Douglas 1930:27; Ewers 1955:150; Ewers 1958:75; Flannery 1953:64; Grinnell 1893:227; Coues 1897:724; Hodge 1968:170; McHugh 1972:105; Wissler 1910:29, 30, 46-47). Some accounts state that Blackfoot arrow points were frequently fashioned from buffalo horn (Lowie 1963:58; cf. Flynn 1908:245). The Cheyenne and Crow made bows by binding pieces of horn and sinew together (McHugh 1972:105). According to Mails (1972:536-537), a common method among the Plains Indians of transporting fire from camp to camp was to carry a live coal and piece of punk in a hollowed out buffalo horn lined with moist rotten wood and plugged at the open end by a hardwood stopper; the punk apparently smoldered in the almost airtight chamber. Horns were also used as porcupine quill flatteners and headdress ornaments (Ewers 1955:150; Grinnell 1893:227; McHugh 1972:105). Writing on the uses of the horns by the Plains Indians in general, McHugh stated:

> From buffalo horns alone, the Indians fashioned arrow points, drinking cups, powder flasks, trimmings for war bonnets, emblems of high office, spinning tops for boys, instruments for flattening porcupine quill embroidery, heads for war clubs, cupping horns for bleeding patients to relieve infections, and--after simmering with spruce needles--a medication for sore eyes. And pieces of the horns, boiled, split, and flattened, were sewn together with sinew to make dishes. The vessels were not watertight, but evidently the slight leakage did not impair their serviceability. (1972:105)

USES OF THE HAIR AND TAIL

The Plains Indians found several uses for the hair of the buffalo, one of which was stuffing for pillows, saddles, balls used in games and, among the Assiniboine, the shaman's medicine ball. It was also used in headdresses, lodge and war implements (warclubs, shields and quivers, for example), ornaments (Ewers 1955:150-151; Ewers 1958:75; Grinnell 1893:227; McHugh 1972:104), and twisted or braided into ropes that could be used as belts, bridles, lariats or halters (Douglas 1930:27; Ewers 1955:151; Flynn 1908:245; Hodge 1968:170; Hornaday 1971:438; Mandelbaum 1979:60; McHugh 1972:104).

Buffalo tails were used as lodge ornaments. A tail attached to the end of a stick served as a fly switch (Ewers 1955:150-151; Ewers 1958:75; Grinnell 1893:228; Mandelbaum 1979:60). According to McHugh (1972:98), a buffalo tail mounted on a short handle was a "standard accessory" used in the Plains Indian sweat lodge, to sprinkle water on the heated rocks and to beat the body in a form of massage.

USES OF SINEW

Sinew, the tough fibrous tissue joining muscle and bone, was obtained from the large tendons of the back and legs of the buffalo. The tendons were removed from the carcass and dried, then soaked until free of all natural glue, and gently pounded until the fibres were completely separated (Douglas 1930:27). The strands were rolled in the palms to smooth and limber them before use (McHugh 1972:107). Sinew was used as thread, as strong flat cord for binding heads and feathers to arrow shafts, and as fibre for ropes, bowstrings, bow backings and snowshoe webs (Denig 1961:13; Douglas 1930:27; Ewers 1955:150; Ewers 1958:75; Flynn 1908:245; Grinnell 1893:228; Hodge 1968:170; Mandelbaum 1979:60; McHugh 1972:107; Quaife 1921:301).

USES OF THE INTERNAL ORGANS

The most common uses of internal organs of the buffalo were apparently as containers for water and food. The lining of the paunch (the first of the four ruminant stomachs) was especially useful. Grinnell (1893:201) stated that the Blackfoot used the paunch lining to fashion buckets, cups, basins and dishes. Similar observations were made for various tribes by Ewers (1958:75), Flannery (1953:104-165), Alexander Henry the Elder (Quaife 1921:301-302), Alexander Henry the Younger (Coues 1897:724), and McHugh (1972:107). The paunch was also made into food containers and cooking vessels (Flannery 1953:65; McHugh 1972:107). The large intestine and the membranous sacs enclosing the heart and bladder were used as waterproof containers for food and water (Douglas 1930:28; Flannery 1953:64-65; McHugh 1972:107). The small intestine could be used to repair broken wooden handles, according to McHugh (1972:107-108). It was stretched over the broken parts while wet, and bound the parts together as it dried. The liver and brains, as stated earlier (see "Uses of the Hide"), were rubbed into hides to soften them.

Even the gall stones of buffalo were utilized in the material culture of the Plains Indians. The Blackfoot apparently utilized a yellow pigment obtained from the stones (Ewers 1958:75; McHugh 1972:99).

USES OF THE BONES AND TEETH

The Plains Indians fashioned various tools from the bones of the buffalo. For example, the Blackfoot Indians made hide fleshers from the metacarpals, metatarsals, tibiae, femurs, ribs and shoulder blades (Ewers 1955:150; Grinnell 1893:228). Parts of the shoulder blades were also fashioned into paint "brushes", awls, tampers for pipes, axes and hoes by many Plains Indians (Douglas 1930:28; Ewers 1955:150; Ewers 1958:76; Grinnell 1893:228). Paint "brushes" were also made from the hip bone by the Blackfoot, and the boss ribs were used as arrow shaft straighteners (Ewers 1955:150; Ewers 1958:75).

In addition to using the bones of buffalo for tools, the Plains Indians found a variety of other uses for them. For example, the Blackfoot made sleds and dice from the rib bones, and used the skull as an altar ornament during the Sun Dance. The eye sockets of the skull were sometimes used in depilating rawhide rope by pulling the rope back and forth through the socket (Ewers 1955:150-151; Ewers 1958:75-76). The Plains Indians also made ornaments, beads and pendants from buffalo bone (Douglas 1930:28). Cartilage from the breast bone was an ingredient in glue (McHugh 1972:105).

The Plains Indians strung buffalo teeth together to make necklaces, sewed them onto dresses or wore them as pendants (Douglas 1930:28; Mandelbaum 1979:60; McHugh 1972:106).

USES OF MISCELLANEOUS PARTS OF THE BUFFALO

Other parts of the buffalo utilized in the material culture of the Plains Indians included the fat, scrotum, phallus and tongue. The Blackfoot Indians used buffalo fat to polish stone tobacco pipes, and mixed fat with earth pigments to provide an oily base for paints (Ewers 1958:75). As noted previously (see "Uses of the Hide"), fat was also rubbed into hides to soften them. The scrotum of the buffalo was fashioned into stirrup covers by the Blackfoot (Ewers 1955:151; Ewers 1958:75). The Plains Indians also used the scrotum in making rattles (McHugh 1972:108). According to Ewers (1958:75), the Blackfoot obtained their best glue by cutting the buffalo phalluses into small pieces and boiling them. The tongue of the buffalo was apparently used as a comb by the Plains Indians (Mandelbaum 1979:60; McHugh 1972:109).

USES OF BUFFALO CHIPS

Even the excrement of the buffalo, commonly referred to as "buffalo chips", was put to good use by the Plains tribes, primarily as fuel. Piles of dried dung apparently burned in a manner similar to peat (yielding a clear, hot flame), and produced an incandescent bed of coals. Because buffalo dung burned with little smoke, it was a very useful fuel for war parties who did not wish to be discovered by the enemy (Douglas 1930:28; Ewers 1955:151; Flynn 1908:245; Mandlebaum 1979:60; McHugh 1972:109). When travelling across stretches of treeless plain, buffalo chips would have been indispensable as fuel.

Piles of buffalo chips were also used to form the drive lines along which buffalo were driven into corrals or over cliffs when the Plains Indians used the pound and jump methods of hunting buffalo.

SUMMARY

The wide range of material culture items discussed above demonstrates the tremendous importance of the buffalo in the livelihood and culture of the Plains Indians. Tom McHugh whimsically summarized the relationship between the buffalo and the Plains Indians as follows, "The . . . array [of buffalo by-products] made the buffalo a tribal department store, builder's emporium, furniture mart, drugstore, and supermarket rolled into one" (1972:109; brackets mine).

THE BUFFALO IN RELIGION AND CEREMONIALISM

The religious beliefs of the Plains tribes were deeply rooted in their experience of the natural world, essentially based upon the concept of a controlling supernatural power or series of powers pervading the universe (Wissler 1974:109-110). Several names were applied to sacred or supernatural power by the Plains tribes. The Dakota used the term wakan tanka; the Pawnee referred to the dominating power as tirawa; the Plains Cree knew the pervading power as Great Manito (Mandelbaum 1979:157; Wissler 1974:110).

Among the Blackfoot, the greatest and most universal of powers was natosiwa, or sun power (ibid.:110-111). Old Man (or Napi), the culture hero of the Blackfoot, was also revered and possibly may have been considered one with the sun, in the minds of some Blackfoot Indians (Grinnell 1893:258). In addition to the sun power, all the forces, beings, and even some inanimate objects, possessed power to some degree (Grinnell 1893:258-262; Kidd 1937:182). The Indians believed that they were assisted in life by these supernatural powers. Although they generally addressed their prayers to the sun, it was these lesser spirit powers that rendered assistance, acting as intermediaries between man and the sun power (Kidd, ibid.). Men gained supernatural assistance through such means as dreams, prayers, various ceremonies, and vision quests.

Among the animals particularly respected and considered very powerful by the Blackfoot were the buffalo, bear, raven, wolf, beaver, and kit-fox. The buffalo stood very high among the animals revered, symbolizing food and shelter, and was Natoye (of the sun), i.e., sacred. It was the most powerful of all the animal spirit helpers (Grinnell 1893:220). The buffalo was also a powerful symbol used to decorate medicine objects such as shields and painted tipis; buffalo materials such as hide, hoofs, and tails were used as charms and in fabricating medicine bundles and their contents (McHugh 1972:110; Wissler 1912).

The importance of the buffalo to the survival of the Plains Indians consequently gave the buffalo a prominent role in the religious life of the Plains tribes. This role was very evident in the mythology and ceremonies of the Plains Indians.

THE BUFFALO IN MYTHOLOGY

The myths of the Plains Indians contain numerous references to the buffalo. This is a distinctive trait of Plains Indians mythology as the buffalo is seldom encountered in myths from other culture areas (Wissler 1974:109). Mythic tales of the buffalo can be categorized generally as tales of the origin of the buffalo, tales emphasizing the supernatural power and physical strength of the animal, tales suggesting the close relationship (in terms of dependence for subsistence) of the Indian to the buffalo, tales about buffalo hunting, and miscellaneous tales in which buffalo play a variety of roles (which are often minor or incidental). Examples of these types of tales are provided below.

MYTHS OF THE ORIGIN OF THE BUFFALO

A common belief among the Plains Indians was that the buffalo originated and emerged from underground. Some of the northern Plains groups believed that the buffalo emerged from beneath a lake. It was sometimes said that this lake was a specific lake south of Battleford, Saskatchewan, or that it was Jackfish Lake, north of North Battleford, Saskatchewan (Dary 1974:55; Roe 1972:643-644). In 1910, C.C. Uhlenbeck (1912:6-12) recorded a Piegan myth about the origin of the buffalo, told to him by the informant Bear-chief, on the Southern Piegan Blackfoot Reservation, Teton Country, Montana. This myth not only illustrates the belief that the buffalo originated in a land underwater, but also illustrates the Indians' awareness and wariness of the buffalo's physical power (the idea evident in this tale that buffalo at one time would attack and eat people is not an uncommon Plains Indian mythological motif). It also shows their sense of sharing a close relationship with the buffalo (note that the buffalo appear at times to be similar to people; also, the union of a buffalo and a woman occurs and is of great consequence, leading to the initial availability, above ground, of a herd of buffalo).

> Long ago the ancient people used to eat roseberries, hardseed-berries, bark, black alcali. There was a man, [that] camped alone. His wife was picking roseberries about, and there she met a

young man. The young man said to her: Have you a daughter, that you are willing to give me? [She said:] I shall go home, I shall tell my daughter's father. If he is pleased, he will perhaps go and tell you. That woman's husband was wise. Then he thought: I shall go and see him, I shall perhaps have use of him. He went to him. When he saw him, he liked him. He said to him: Let us go home together, I shall have you as a son-in-law. That man came close to his lodge. He spoke ahead to his wife: Go outside. Here is your son-in-law. It is not good, that you see him. Then that woman went out. She began to build a lodge. She built the lodge with ryegrass, bark [and] leaves.

They fed him. The things they used to eat, they fed him with. That young married man then ate of the black alcali and the hay. For two nights he just ate the same [black alcali and hay], those other things [the bark and the two kinds of berries] he refused to eat. That man had a suspicion, he knew, that he [his son-in-law] was not the same kind of being as we are. That man was wise. After four nights he went to him. He said to him: What kind of being are you? You are not the same kind of being as I am. Why don't you eat from these bark, roseberries, hardseed-berries, [which I eat?] Of the two things, which you eat now, hay and black alcali, we don't eat the hay, but we [do] eat the black alcali. Now [go and] hunt. [He said:] Yes, I shall hunt. And he hunted.

He was one night out, where he went to hunt. And he brought the meat from a carcase. It was a person. Then he [the father-in-law] went to his son-in-law. When he knew [that] the one, that he [his son-in-law] had killed, [was a person], he said to him: These pieces of meat, that you have brought from a carcase, for a time I shall not eat of them. [Go] soon [and] hunt, kill some one of your tribe. I shall decide, which of the two, that you will bring pieces of meat from, is best. [He said:] Yes, I shall kill [some one] of my tribe.

He was one night out again. He brought pieces of meat from a carcase, [belonging to] his tribe. [It was] a partner of his, [that] was killed by him. That wise man looked at them again, he knew that they were of different kinds [these pieces and those he saw before]. They then ate of those pieces he had first brought in. They vomited them up. They ate of them alone, but his children did not eat of them. And they ate again of those new pieces. They did not vomit them up. And his children ate, all of them. They did not vomit it up. And he gave his wife and his children again to eat of those last pieces. They did not vomit it up. And they fed their son-in-law. They gave him to eat of both, of his first pieces and the latter ones. And they had done eating. That man said to his wife: Which of the two [kinds of pieces] that you ate do you like best, these that you vomited up, or these that you did not vomit up? Which will be called buffalo? [She said:] The last pieces which that person brought, he [from whose carcase those pieces were taken] will be called buffalo, and those first pieces which he brought, he [from whose carcase those pieces were taken] will be called person. And then they had finished giving them names.

He said to his son-in-law: Where are you roaming about? He answered him: I roam about under the water. He said to him: Now you have got a name. He said to him [also]: Which may be your name? He answered him: Our name is water-bull. He said to him: What do you eat? He answered him: [We eat you,] we eat also hay and earth, we eat three things. That man said to his son-in-law: Now we shall eat you. And that man picked up fire [that means: A burning fire-stick]. He hit him with it. His son-in-law just picked up that piece of human flesh. He just pressed it under his arm, he ran out, he turned into a buffalo, he jumped into the water.

Next summer his daughter gave birth to a child. Her child was a buffalo-calf. Then that man said: We shall move. That child will not be killed. He will be left here, we are ashamed of him. Yes, there he was left. There was a log, he was left by it. He got to be a year old. Where he stayed, he did not die. And he turned into a person.

He just went in the direction, [he thought] his mother was in. And he was found by two persons, young men. They pitied him very much. They treated him as their younger brother. They took him home with them. And next summer he said to them: You have taken pity on me. Let us go to my father. Then they said: Yes. Then they started. They came there to a lake. They stayed there. Suddenly [two] buffaloes [the boy's father and a companion] came out of the lake. They got ashore. They turned into persons. They got far from it [from the lake]. Here that boy followed running. He turned into a buffalo. Then they [the two buffaloes] saw him. They waited for him. When he got near them, he turned into a person.

One of them was his father. He tried to influence him [his father-in-law] by means of [delivering] his companion [that they might eat him]. They met there his son. And those that were behind [the men with whom the boy had come to the lake] rose up. They went towards them [the buffaloes]. One of those who met just ran away. He just ran into the lake. And those people all met. That boy said to his elder brothers [the men he had come with]: Here is he, who is my father. That water-bull said to them: Now you will get something for your visit. We shall go to my father, the chief bull. He stays under the water. That water-bull, one of them, went around [one of the men], and sat down, and he [the man] got on him. Then his son did the same. The other one got on him. When that water-bull and his son started to run, they snorted water. They covered [literally: they did] the [two] riders with it. They [the two riders] did not know, when they [the water-bulls] ran into the water. They were told by the water-bull [the boy's father]: Now get off. And when they looked, suddenly saw all the people under the water.

They went to the chief of this people. They [the bulls] cried out all over the camp, that they [the visitors] must not [be allowed to] go out. Those persons [the bulls that cried out] said, that they should kill and eat them. That chief then told them: I shall not

> consent to what my children here say. I shall now camp over there far away. I give you [that means: to the tribe of the two visitors] all the people here [the buffaloes]. I give you half of them, but I don't give you the other half [at this time]. [The old people nowadays still expect the other half of the buffalo-herd coming.] That water-bull [the son-in-law] had the human flesh, [that] had turned into a dog, always under his arm. He just gave that dog secretly to his father. He said to him: When I go out, you must turn that dog loose. The water-bull and his son were ridden again [by the visitors]. Those two persons [the visitors] came out of this water. The father of that water-bull turned that dog loose. That he barked running, that's why these many people all turned into buffaloes. The way those four persons went they all followed running. When they all ran out, they could not go back into the lake. They were given away by that chief. That water-bull and his son turned into persons.
>
> The water-bull was not afraid any more [of his father-in-law, because now he had turned loose the buffaloes]. Then he went straight to his wife. His father-in-law was not angry with him any more. He thought it good, that the buffaloes were turned loose for him. That man said to his son-in-law: What can these buffaloes be killed with? That water-bull said to his father-in-law: They will die by flints. They will be skinned with the same. [They] the flints will be handled on sticks. You will build your corrals to cliffy rocks and steep banks. There they will jump into. You will kill them. He said to his father-in-law: Now I shall eat these buffaloes. I shall not go back to my father. I am very much used to my wife. He said [also] to his father-in-law: When I die, you must put me into the water. I shall turn into a rock. Then the boiling is ended [that means: the story is at an end]. (Uhlenbeck 1912:6-12; original brackets)

Some tribes believed that the buffalo came out of a hole in the ground, or a cave (Dary 1974:54; J. Dorsey 1894:476-477; G. Dorsey 1905:39-41; Fletcher and La Flesche 1911:147; Kroeber 1975:22-23; Roe 1972:644). An elderly Arapaho informant provided the following account of the origin of the buffalo and buffalo hunting:

> Bows and arrows were made by the man who was the father of the mythical twins (boyish monster-destroyers, who are the heroes of a myth called "Tangled-Hair"). This was the first bow and arrow. Hā^xäbí nää (one of the twins), when blown away by the whirlwind, was found in the rushes and called Biaxuyá n ("found in the grass"). He caused the buffalo to come out of a hole in the ground. When he was about to do this, the people made a strong corral of timber; into this he called the buffalo. (Kroeber 1975:22-23)

The following passage is taken from a Cheyenne myth which accounts for both the origin of corn and of the buffalo. In the myth, two men, one from the south-side of the tribal camp-circle and one from the north-side, discover that they are dressed identically as a result of entering a spring which flowed out of a nearby hillside.

> Each claimed to have entered the spring that flowed out from the hillside at the entrance to the camp-circle, where he had been instructed to dress after this fashion. They then told the great crowd that they were going to enter the spring again, and that they would soon come out. The crowd watched them as they approached the spring. The man from the south side reached the spring, covered his head with his buffalo robe, and entered. The other young man did the same thing. They splashed the water as they went, and soon found themselves in a large cave. Near the entrance sat an old woman cooking some buffalo meat and corn in two separate earthen pots. The woman welcomed them thus: "Grandchildren, you have come. I have been expecting you, and am cooking for you. Come and sit down beside me." They sat down, one on each side of her, and told her that their people were hungry, and that they had come to her for their relief. The woman gave them corn from one pot and meat from the other. They ate, and were filled, and when they were through the pots were as full as when they began. Then the old woman told the young men to look toward the south. They looked, and they saw the land to the south covered with buffalo. She then told them to look to the west. They looked, and saw all manner of animals, large and small, and there were ponies, but they knew nothing of ponies in those days, for they never had seen any. She then told them to look toward the north. They looked to the north, and saw everywhere growing corn. Then said the old woman to them, "All this that you have seen shall in the future be yours for food. This night I cause the buffalo to be restored to you. When you leave this place the buffalo shall follow you, and you and your people shall see them coming from this place before sunset. Take in your robes this uncooked corn. Every spring-time plant it in low, moist ground, where it will grow. After it matures you will feed upon it. Take also this meat and corn which I have cooked, and when you have returned to your people, ask them all to sit down in the following order, to eat out of these two pots: first, all males, from the youngest to the oldest with the exception of one orphan boy; second, all females, from the oldest to the youngest, with the exception of one orphan girl. When all are through eating, the contents of the pots are to be eaten by the orphan boy and the orphan girl."
>
> The two young men went out and obeyed the old woman. When they passed out of the spring they saw that their entire bodies were painted red, and the breath-feathers of their heads were painted red instead of yellow. They went to their people, and they ate as directed of the corn and the meat, and there was enough for all; and the contents of the pots was not diminished until it came time for the two orphan children, who ate all the food. Toward sunset the people went to their lodges and began watching the spring closely, and in a short time they saw a buffalo jump from the spring. It jumped and played and rolled, and then returned to the spring. In a little while another buffalo jumped out, then another, and another, and finally they came out so fast that the Cheyenne were no longer

> able to count them. The buffalo continued to come out until dark, and all night and the following day the whole country out in the distance was covered with buffalo. The buffalo scented the great camp, for they left a long, narrow space where the wind went from the camp. The next day the Cheyenne surrounded the buffalo. Though they were on foot they ran very fast. For a time they had an abundance of buffalo meat. In the spring-time they moved their camp to low, swampy land, where they planted the corn they had received from the medicine spring. It grew rapidly, and every grain they planted brought forth strong stalks, and on each stalk grew from two to four ears of corn. The Cheyenne planted corn every year after this. (G. Dorsey 1905:39-41)

Some tribes apparently believed that surplus buffalo beneath the ground emerged via lakes, springs or caverns each spring (Dary 1974:54-55; Roe 1972:643-644). This belief naturally began to waver as the buffalo neared extinction (Dary 1974:54-55). In the early 1890s, Grinnell (1893:257-258) noted that many elderly Blackfoot people believed that Old Man would eventually bring the vanished buffalo herds back to them, as they believed that the white man had hidden them.

Some myths describe the temporary disappearance of the buffalo from the earth at one time, and their retrieval from underground or a cave. Lowie (1918:19, 216-220) recorded two Crow Indian myths which describe this event, one of which is "The Giants and Their Buffalo". The following is one of two versions of the myth recorded by Lowie:

> The buffalo that had been made disappeared. "Let us look for them," said the people. Cī`rapé [the younger brother of Old-Man Coyote, the Crow culture hero] looked for them and found their den right in the rocks. It was hard to find, but he succeeded. Two men made plenty of moccasins and then went after the buffalo, following the tracks. They traveled for three or four days, when they caught up with the hindmost buffalo. Then they saw light shining ahead. "Here is another band coming." They followed the buffalo to another land, where they found a big camp. There were a great many buffalo there, some were even used for riding. This race of people were giants and they mocked the pursuers, saying, "Look at these little people!" They asked what these animals were and the giants said they were horses. The giants asked what they wanted to eat. "Buffalo." The giants had a herald announce that the herd be brought in so the visitors could pick from it. They selected a big fat cow. The giants watched the people eat buffalo and wondered at it for they called the buffalo a "stinking animal." When they killed the buffalo, took the manifolds, and broke the marrow from the bones, the giants held their noses with disgust. They roasted the ribs over the fire and feasted on the ribs, while the giants stood aloof and held their noses. They took the ribs and ate. The giants still held their noses. "How can they eat that stinking stuff?" They sliced

> the meat over the fire and they took fat to dry. "Where do you live?" "We come from up above, but we want to eat some of your horses, so we followed them in here." "All right, you shall have a large portion of them."
>
> Every creature on the face of the earth except the buffalo were the giants' enemies. Then they heard a voice bidding the giants hide their visitors. All the creatures were attacking the giants, who retreated. Then the little people were asked to hide, because it was not safe for them.
>
> These big giants were killed by the least scratch made on them by little birds. The little people were kept hidden, but it got too hot so they crawled out and saw that the enemies were birds. They took clubs and went out. The giants did not want them to go out, but they killed birds right and left and drove them back. The giants got to be afraid of the pygmies and would not let them stand on the ground, but carried them about and warned one another against doing anything to offend them lest they wipe them out. A little later the Indians said, "Our folks are hungry, we want to take some of your horses." The giants drove in a herd to the hole. The people called Ack·ápkawia were the first in existence. The two men brought the buffalo back through the tunnel to the other entrance. They got back to the earth, kept track of buffalo, and said they would use knives to prepare them. (1918:218-220; cf. Simms 1903:295-297)

A Blackfoot version of the disappearance of the buffalo through theft and their retrieval by Napi (Old Man) was reported by Lewis Spence. The following passage is from his account of the myth:

> There was once a great famine among the Blackfeet. For months no buffaloes were killed, and the weaker members of the tribe dropped off one by one, while even the strong braves and hunters began to sink under the privation. The chief in despair prayed that the creator, Nápi, would send them food. Nápi, meanwhile, was far away in the south, painting the plumage of the birds in gorgeous tints. Nevertheless he heard the voice of the chief over all the distance, and hastened northward.
>
> "Who has summoned me?" he demanded.
>
> "It was I," said the chief humbly. "My people are starving, and unless relief comes soon I fear we must all perish."
>
> "You shall have food," answered Nápi. "I will provide game for you."
>
> Taking with him the chief's son, Nápi travelled toward the west. As they went the youth prayed earnestly to the Sun, the moon, and the Morning Star, but his companion rebuked his impatience and bade him hold his peace. They crossed the Sweet Grass Hills, which Nápi had made from huge handfuls of herbage, and where he loved to

rest. Still there was no sign of game. At length they reached a little lodge by the side of a river, and Nápi called a halt.

"There dwells the cause of your misfortunes," said he. "He who lives in that lodge is the Buffalo-stealer. He it is who has taken all the herds from the prairies, so that there is none left."

To further his design, Nápi took the shape of a dog, and turned the youth into a stick. Not long afterward the little son of Buffalo-stealer was passing that way, and immediately desired to take the little dog home with him.

"Very well," said his mother; "take that stick and drive it to the lodge."

But the boy's father frowned angrily.

"I do not like the look of the beast," he said. "Send it away."

The boy refused to part with the dog, and his mother wanted the stick to gather roots with, so the father was obliged to give way. Still he did not show any good will to the dog. The following day he went out of the lodge, and in a short time returned with a buffalo which he skinned and prepared for cooking. His wife who was in the woods gathering berries, came home toward evening, and at her husband's bidding cooked part of the buffalo-meat. The little boy incurred his father's anger again by giving a piece of meat to the dog.

"Have I not told you," cried Buffalo-stealer . . . "that he is an evil thing? Do not touch him."

That night when all was silent Nápi and the chief's son resumed their human form and supped off the buffalo-meat.

"It is Buffalo-stealer who keeps the herds from coming near the Blackfoot camp," said Nápi. "Wait till morning and see."

The Herds of Buffalo-Stealer

In the morning they were once more dog and stick. When the woman and her child awoke they set off for the woods again, the former taking the stick to dig for roots, the latter calling for his little dog to accompany him. Alas! when they reached the spot they had fixed upon for root-gathering operations both dog and stick had vanished! And this was the reason for their disappearance. As the dog was trotting through the wood he had observed an opening like the mouth of a cavern, all but concealed by the thick undergrowth, and in the aperture he perceived a buffalo. His . . . sharp barking attracted the attention of the stick, which promptly wriggled snake-wise after him. Within the cavern were great herds of deer and buffalo, enough to provide the Blackfeet with food for years and years. Nápi ran among them, barking, and they were driven out to the prairie (1932:208-210).

Another belief of the origin of the buffalo is apparent in the genesis myths of some Plains tribes, and that is that they were simply created along with all other animals. In one tale of the Blackfoot genesis recorded by Grinnell (1893:137-144), Old Man creates the mountains, prairie, etc., the people, and the animals of the earth, as he is "travelling about". In the genesis myth of the Crow Indians recorded by Lowie (1918:14-19) and Simms (1903:281-282), Old-Man-Coyote creates the earth, man and animals with the aid of some ducks who dive beneath the water which covered the earth, and bring earth up from below. A similar tale is also told among the Northern Blackfoot, Cree and Algonquin (Grinnell 1893:271-272).

MYTHS ILLUSTRATING THE STRENGTH AND POWER OF THE BUFFALO

Although the relationship of Plains Indian to buffalo was one of hunter to prey, the buffalo was respected and feared as an animal of great spirit power and physical strength. In Plains Indian mythology there are tales in which the roles of buffalo and Indian are reversed; the buffalo becomes the hunter and the Indian the prey. According to the version of the Blackfoot genesis myth recorded by Grinnell, the Indians, in the very early days, were essentially the defenseless prey of the buffalo, who tore men to pieces and ate them. With the assistance of Old Man, however, the Indians improved their position and were able to kill the buffalo.

> In those days there were buffalo. Now the people had no arms, but those black animals with long beards were armed; and once, as the people were moving about, the buffalo saw them, and ran after them, and hooked them, and killed and ate them. One day, as the Maker of the people was travelling over the country, he saw some of his children, that he had made, lying dead, torn to pieces and partly eaten by the buffalo. When he saw this he was very sad. He said: "This will not do. I will change this. The people shall eat the buffalo."
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> He went to some of the people who were left, and said to them, "How is it that you people do nothing to these animals that are killing you?" The people said: "What can we do? We have no way to kill these animals, while they are armed and can kill us." Then said the Maker: "That is not hard. I will make you a weapon that will kill these animals." So he went out, and cut some sarvis berry shoots, and brought them in, and peeled the bark off them. He took a larger

> piece of wood, and flattened it, and tied a string to it, and made a bow. Now, as he was the master of all birds and could do with them as he wished, he went out and caught one, and took feathers from its wing, and split them, and tied them to the shaft of wood. He tied four feathers along the shaft, and tried the arrow at a mark, and found that it did not fly well. He took these feathers off, and put on three; and when he tried it again, he found that it was good. He went out and began to break sharp pieces off the stones. He tried them, and found that the black flint stones made the best arrow points, and some white flints. Then he taught the people how to use these things.
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> Then he said: "The next time you go out, take these things with you, and use them as I tell you, and do not run from these animals. When they run at you, as soon as they get pretty close, shoot the arrows at them, as I have taught you; and you will see that they will run from you or will run in a circle around you."
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> Now, as people became plenty, one day three men went out on to the plain to see the buffalo, but they had no arms. They saw the animals, but when the buffalo saw the men, they ran after them and killed two of them, but one got away. One day after this, the people went on a little hill to look about, and the buffalo saw them, and said "*Saiyah*, there is some more of our food," and they rushed on them. This time the people did not run. They began to shoot at the buffalo with the bows and arrows *Na´pi* had given them, and the buffalo began to fall; but in the fight a person was killed.
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> At this time these people had flint knives given them, and they cut up the bodies of the dead buffalo. It is not healthful to eat the meat raw, so Old Man gathered soft dry rotten driftwood and made punk of it, and then got a piece of hard wood, and drilled a hole in it with an arrow point, and gave them a pointed piece of hard wood, and taught them how to make a fire with fire sticks, and to cook the flesh of these animals and eat it. (Grinnell 1893:140-141)

Other Plains Indian myths describe failed attempts to hunt the buffalo that result in the animal attacking the hunter in revenge. In the following Crow Indian myth recorded by Lowie, a buffalo (which obviously possesses great spirit power) is impervious to a hunter's attempts to shoot him:

> A young man was hunting deer and buffalo. He saw a bull standing up. He sneaked up in a coulee and when he got close he shot at him. The buffalo raised his tail and looked for him without running away. He shot him again. Again he shot him. The fourth time he shot him. Then the bull got furious. None of the shots hurt him. The Crow got out of his hiding-place and was going to shoot him again. The buffalo saw it and came towards him. The Indian ran to his horse, got on, and fled, pursued by the buffalo. He came to a cliff, got off, and went into a cleft in the rocks. The buffalo came

> and drove his horse away. Then he got to the cliff and thought the buffalo could not follow, so he ran to a creek, turned, and saw the buffalo. It went to the end of the cliff and came towards him. When he saw the buffalo coming for him, he got to the river, but the bank was too high to jump. There was a tree hanging over. He climbed the tree and sat there. The buffalo came to the tree, looked up and saw him, got back, rolled in the dirt, and came to the tree, which was a big one. He hooked it and knocked off its bark. He hooked off the bark four times. Then he rolled in the dirt again and red paint flew up from where he had wallowed. Now the man was ready for him with his arrows. The buffalo came to the tree, hooked it twice, and at the same time the Crow shot him in the side, but the arrow glanced off as if he had shot at a stone. He did not shoot any more, seeing he could not do anything. The buffalo hooked the tree several times and rolled in the dirt. Then red paint did not fly any more, but dirt flew. He came towards the tree, walked up, hooked the tree, then went back and came faster toward the tree than before. The man kept crying and begging. The fourth time he rolled in the dust, and white clay flew up. He hooked the tree. Bigger chips flew off now. The Indian kept on begging and crying. He cried till he was hoarse. He wondered how he could get away. The place where the buffalo hooked the tree was getting worn away. All this time the man kept begging for mercy the buffalo was rolling on the ground and lay there. After a while he came under the tree. When he got there he did not hook it, but looked at the man, and went away to his wallow. He looked back and saw the man on the tree, went way off, turned, and looked back. The man saw that the buffalo had painted his eyes white and had a buffalo tail round its neck and its eyes painted white. The roan rolled on the ground, got up and turned into a black horse painted in the same way and with a tail round the neck. This black horse rolled and changed into a bay horse. It had eyes painted white and a buffalo tail round the neck. This bay stood and rolled in the dust and turned into a gray horse, which stood still, then went the other way. When it was far off it turned into a buffalo again. It stood on the hilltop. The Indian climbed down the tree and stealthily went home.
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> This man died recently; he lived on the Big Horn. (1918:269-270)

In a similar Crow myth, below, a hunter has an even more bizarre experience with a buffalo:

> An Indian was hunting buffalo. He saw one and sneaked up to it. He came to a washed out trail and crawled up close. A buffalo was lying down. At the noise it stood up and looked at him. He shot the buffalo. It pawed the ground, raised its tail, and came toward the man who lay in the trail which had been washed out. It hooked dirt over the man and tried to make the ground even with him. While digging down the man dug with his knife and made the place still deeper. After the buffalo found he could not hook the man he stuck his head down where the man was and licked him till he wore his shirt off. He kept licking his skin till it was worn off. The man began to cry. When the buffalo had worn his skin off, the blood began to

> run. The man cried and begged for mercy. After a while the buffalo stood over him and made water, which burnt like fire. He went away. The Indian lay there for a while, peeped out, and saw the buffalo a little way off. It went back again, then he heard somebody singing.
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> He peeped out and saw a man riding a black horse painted with white clay; his own face was painted with white clay, he wore a buffalo cap with horns and feathers at the back, he held a spear with a buffalo tail tied to it and was singing. While he was looking at him, the horseman started for the rocks close by. The rocks began to shoot at the rider. He went and stuck his spear in one rock and turned back. Then the Crow heard cheers and shooting from the rocks. When he came back, he sang another song and came to the rocks. The rocks shot again and smoke came out. He did not stick in his spear, but struck the rocks and turned aside. Then he turned, and sang another song. He wore a black calfskin shirt, fringed at the sleeve, and carried a shield with a buffalo shown in the middle. When he started toward the rocks, the rocks turned into people. He went and stuck one with his spear and went back. He said, "This is the way I am." When he came back to where he had been he talked to the Crow, told him to look at him, sang another song, and went to the rocks transformed into people. He struck one and turned back. When he came, the rider asked the man if he had seen him. He said he had. He rode round several times and went off. The sore on the Crow's back did not hurt any more. He did not know how the horseman changed into a buffalo and stood there. While the buffalo was walking away, he kept looking at him. The buffalo went to where a buffalo had died and stood there. While the Crow was looking, the buffalo vanished. The man looked and thought it was the ghost of the dead buffalo he had seen. (Lowie 1918:270-271)

Among the Caddo, a tribe bordering the Plains to the south and the Mississippi River to the west, the following tradition existed:

> When the world was new there were many wild and fierce animals, and the buffalo were among the fiercest, for they ate human being. In those days the buffalo were many-colored and roamed the plains in great herds, and were so numerous that men could not go out . . . alone for fear of being caught by them. There was one great man who received power from the Father, and he had the power to go right into the midst of these . . . animals and kill them without being hurt. That man was Buzzard . . . One time some men went out . . . alone to hunt turkey and deer. They wandered far, and when they started home they found that they had to cross a long stretch of lonely prairie. While they were hurrying across the vast stretch of country they saw a black cloud arise in the west and come nearer and nearer, until at last they knew that a great herd of buffalo was sweeping down upon them. They threw the game from their backs, threw away their bows and arrows, and ran as fast as the wind. The buffalo, dangerous as they were, were not good runners, and so the men reached the timber before them and ran into the dense thicket.

> After these men succeeded in escaping, the people took courage and ventured farther away from home. One time four men went out to hunt bear. They went into the timber that lay between two mountains and there they found the fresh tracks of a bear. They trailed it all through the timber and over the mountain, and found it at the edge of the timber at the foot of the mountain. The bear ran out to the open plain and the men pursued and killed it. While they were cutting it up to carry home they heard a great noise, like thunder, coming across the plains. They looked and saw that the buffalo were upon them. They tried to escape, but it was too late. The buffalo caught all but one man, who succeeded in gaining the timber and climbing a tall tree. All day the buffalo surrounded the tree and tried to butt it down, but could not. Night came on, then they returned to the plains and the man climbed down and ran to his home. He told all the people how the buffalo had surprised them and had killed his three companions. The people hastened to the place, but found nothing but a few bones scattered about. From that time on the buffalo ate many people, until Coyote came. Then the people left this dangerous country and went into another. They went through the gate to the new country, and Coyote went with them. He was the last to go through the gate, and as he went he shut the gate, so no dangerous animals could enter, and he let through only a few buffalo who had never tasted human flesh and so were not dangerous. (Gunnerson 1972:2-3)

Myths such as those described above, as well as many of the tales in the next section, are interesting indicators that the Indians' relationship with the buffalo, although one of hunter-prey, was an emotionally complex one that involved a great respect for, and fear of the animal which, to the Indians, obviously had a mysterious and sacred quality.

MYTHS OF THE CLOSE RELATIONSHIP BETWEEN THE BUFFALO AND THE INDIAN

The close relationship of Indian to buffalo is evident in numerous Plains Indian myths in which Indians and buffalo enter into relationships which were, in reality, solely human. Tales of unions between buffalo and humans and of buffalo adopting human infants and children exemplify this type of myth (McHugh 1972:136).

Uhlenbeck recorded the following Piegan tale about a woman who entered into a special relationship with a male buffalo. This myth is known as the tale of "The Leader Buffalo":

> There was a man, [that] had one wife. The ancient Peigans were making a corral. The buffaloes would not run in [into the corral]. That woman went after wood. There were other women, they saw

buffaloes coming that way. That only wife said [to the leader-buffalo]: Leader, run well, I shall marry [you]. [This was only meant as a jest.] After a short time the buffaloes jumped [over the bank]. The leader was not injured. The rope broke with which the woman had packed the wood on her back. Her companions left her. There was a young man, [that] wore his robe inside out, he came to her. He told her: Come on, we shall go away. She said to him: Why do you say that? I don't know you. He told her: Make haste, I did not care for those [buffaloes], my father, my mother, my younger brothers. I only cared for you. That woman said: Yes, you are right. Then they went away. The leader said to that woman: Shut your eyes. After a while he said to her: Come on, open your eyes [literally: see]. [When she open her eyes,] they suddenly sat among the buffaloes.

When his wife did not come, that man began to ask for her. He was told by those women: Yesterday we went with her to get wood. She said: Leader, run well, I shall marry [you]. Then that man knew: My wife is taken away to the buffaloes. He then went to the buffaloes. He came there. He concealed himself. He sat near the river. That woman was told by the leader-buffalo: Go quickly and get me a drink. Here is my horn. [Saying this, he took his horn from his head.] If you meet any person, it will sound. She was just dipping water, [when] she was told by her husband: I come to see you [and to take you home]. She said to him: Wait. Sit there. After a while he sleeps. He sleeps very soundly. I shall come back. She then went home [to the leader-buffalo]. The horn sounded. She was told by her husband [the leader-buffalo]: There was a person, you talked with him. She said to him: No, over there are your younger brothers. They told me, that I must give them a drink. He said to her: Come on, look for lice on my head. A long time she was looking for lice on his head. He feel asleep. That woman rose up. She went to her [former] husband. She said to him: Come on. Then they started to run off.

After a very long time that man looked back. He said to his wife: He is running after us. He was close to them. That woman threw away her moccasin. The [other] buffaloes were there with the leader-buffalo. He had taken them with him. He got to that moccasin. He stopped running. He licked it. All these buffaloes licked it. When they had started again to run, after a long while there was another moccasin [thrown by the woman]. They then did it the same [licked it]. When they had started again to run, again after a long while there was a legging [thrown by the woman]. He [the leader-buffalo] then saw it. He did it the same [licked it]. When they had started again to run, after a short while there was a dress [thrown by the woman]. He [the leader-buffalo] then found it again. That woman said to her husband: I cannot do any more. Over there was a big tree, they ran up into it [for safety]. These buffaloes got to it. When they had run around it, [and] after a long while had started again to run [not finding the trail, and not having discovered that the man and the woman were in the tree], these buffaloes were far away.

> And there was a scabby bull, [that] was the last one running. He scratched his back on that tree. That woman said to her husband: I shall spit down on him. He [her husband] told her: No. Don't spit at him. We shall be known from him [by means of him]. Nevertheless she spit at him. That scabby bull looked up. He saw them. He called for Red-scar [this was the name of the leader-buffalo]: Here is your wife. When they [the buffaloes] had made a long run around [in coming back], Red-scar got back to that tree.
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> He said to these buffaloes: Come on, now try to knock this tree down, each in his turn. Those bulls were butting it [one after another]. That man was shooting at them. It looked, very many of them were killed. Then Red-scar got up. When he shook himself, yellow paint rose up from him [that means: the dust that rose from him was turned into yellow paint]. When he walked towards that tree, he sunk with his feet into the ground. That man said to his wife: Is he used to tell what he will die with? She answered him: He will die by flints. Every time Red-scar butted that tree, he then stripped off big pieces of it. He nearly felled it. And that man shot down at him. He broke his back with a shot hitting it in a joint. These buffaloes fled, making noise wit[h] their feet. That man [and his wife] came down. He shot Red-scar more than once, while he was lying [on the ground]. Then there they stood about. His wife was then weeping. He said to her: You loved Red-scar. She answered him: Yes. There she was, then he killed her [that means: he killed her then on the spot]. That man said: That way will be treated the lovers of the wives of other people, and our wives that we know [as having a lover]. And the dogs have separated [that means: the story is at an end]. (1912:13-17; original brackets; cf. Grinnell 1893:104-107; Simms 1903:301-303; Wissler and Duvall 1908:109-116)

In the version of this myth related by Grinnell (1893:104-107) it is the woman's father who rescues her. In the process he is killed, but brought back to life by her. The buffalo, impressed by this event, teach the man their dance and song. The man teaches these to the chiefs of his band, and this marked the beginning of the All Comrades societies of the Blackfoot.

In an Assiniboine myth recorded by Lowie (1909a:213-215), a woman is abducted by a buffalo. The woman becomes a buffalo and later kills several Indians and tortures her husband when efforts are made to retrieve her. In another Assiniboine tale recounted by Lowie, known as "The Piqued Buffalo-Wife", a man marries a buffalo cow.

> A man wanted some eagle-feathers. He got to an eyrie, found four young birds there, and plucked off their wings. The old eagle attacked him, but was killed in the struggle. The chief of the eagles, Big-Eagle, then pursued the man and, catching hold of his

head, flew with him to a mountain-top, where he left him astride a crag. The man was nearly starved. After ten days the eagle returned, gave the man two feathers from each wing, and took him down to a buffalo-trail. "You will meet an old buffalo-chief. He will be wild, but don't run away. Put one of the feathers in his head, and he won't hurt you."

When the buffalo came, the man followed the eagle's directions. The buffalo told the man he would meet another wild buffalo and bade him put a feather in his head also. The man obeyed. The second buffalo then said "My youngest brother is coming behind me. Put a feather in his head." The man obeyed, and though the bull was preparing to kill him, he left him alone as soon as he was offered the feather. The bull said, "At the end of this road you will find a spring and you will see the tracks of a buffalo cow. Don't tell her about the tracks(?)." When the man got to the tracks, he said, "I should like to eat kidneys, I should like to eat buffalo feet." The cow appeared and asked, "What did you say about me?" "I did not say anything about you." "I heard what you said; I want to take you home." She took him to the camp as her husband. There they gave him his brother-in-law's kidneys to eat.

The Indians were making a buffalo-pound. The man's father-in-law told him not to look outside his tent. But when the man heard the buffalo running he looked out and saw his brother chasing buffalo. Then he made bows and arrows, saying, "I am also going to catch buffalo." The next morning he went to the Indian camp and gave each man two arrows. Then they killed most of the buffalo.

The man picked up grass, willow-leaves, and other kinds of food, and asked the old buffalo, "What would you like to live on?" The old bufflo tried the different kinds of food. He said, " I prefer grass." Then the man asked the moose to choose, and he picked out willow-leaves. The bear chose berries and roots, the deer grass and leaves. This is how the animals got their food.

The man had a calf by his buffalo-wife. He also married a moose-woman. His brother, Magpie, was lusting for one of the wives. One day the man was out hunting. Magpie asked the women to race. The buffalo-woman won. The second time the moose made a mud-hole in her rival's path. The buffalo-woman stuck in the mud, and the moose won. The buffalo-woman was angry, and when she had gotten out she returned to her father, accompanied by the calf. When her husband came home, he found one of his wives gone and pursued her. When he got to the buffalo camp, the old buffalo got up a dance of the buffalo, in the course of which they trampled the man to death.

Magpie was living with the moose-woman. When his brother did not return, he went to look for him. The calf told him how the buffalo had killed his father. Magpie looked for his brother's hair. At last, he found some of it, took it back to camp, and restored his brother to life. Then the man said to the calf, "Tell your grandfather to get all the buffalo after me. We shall fight."

> When the buffalo came after them, the moose-woman began to cry. Magpie said, "Give me some red iron(?)." He chewed it, threw it in the air and thus made an iron house. The buffalo ran against it, but only killed themselves. Some were scared and ran home. (1909a:195-197)

In a Crow myth recorded by Simms, a man marries a buffalo cow, and meets with the following adventure:

> Old Man Coyote met one day a man carrying a bow and a quiver of arrows, roaming all over the world. Old Man Coyote said to him, "Come here, and I will show you something you will like." He took the man to the buffalo cow, stuck fast in the mud, and Old Man Coyote told him to have connection with this buffalo, which the man did. Afterwards, Old Man Coyote took the man to another place where a cow elk was mired, and the man was told to do as he had done with the buffalo cow, which he did, and the Old Man Coyote laughed at him. In the course of several weeks the buffalo cow and elk cow each gave birth to a boy.
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> Shortly after his meeting with Old Man Coyote, the wandering man returned to his people. One day he was playing a game of ring and arrows. While playing, he was approached by a little boy witn a short neck and curly hair, and who had on a buffalo calf robe. The little boy said to him, "Father, if you win anything, give me some." The man looked about him and said, "I will." Shortly afterward another little boy, with lighter hair and longer neck, approached and asked him the same question. When the man had finished playing he called the two boys to him and said, "How is it you call me father?" Each of the boys said, "Don't you remember the time when our mothers were stuck in the mud?" The man said he did. He told each of the boys to go and bring his mother to him, which they did, but in the forms of women.
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> After looking carefully at each, the man did not care for the elk woman, but lived with the buffalo woman, who said: "I will live with you only under the condition that you do not call me harsh names. You may strike me." The man promised, and lived with her for some time, but one day he was vexed at something she did, and he broke his promise, and pronounced a forbidden word. She quickly transformed herself into a buffalo cow and her child turned into a buffalo calf.
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> The man tried to catch them. After many days of chasing them he came upon a big herd of buffalo, and as he was sitting on a hill looking at them, a little buffalo calf came silently up to him and said: "Father, my uncles are going to try you by placing all the calves of my age in a circle facing the center, and you are to be in the center, and you are to pick me out of the number. If you fail, my uncles are going to gore you to death; but I will give you a signal when you approach me by twitching my left ear. They also want you to find my mother by picking her out of a circle. I will go and

> lick some white clay and will act as though I were going to nurse, and will rub the white clay on her left shoulder, so that you may know her when you come to her."
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> The buffalo had a big dance, and then told the man if he were unable to point out his wife and child they would gore him to death. After forming the circles of cows and calves, the man picked out his wife and child, which angered the buffalo uncles of the child, and they started to gore him to death.
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> While the man was on his way trying to find his wife and child, he met Old Man Coyote, who instructed him to place a long thin piece of buffalo sinew and a breath feather of the eagle on the top of his head, that it might revolve when dancing.
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> When the buffalo went to gore him the feather rose in the air and as his being was in the feather, there was no one in the center of the circle; they gored each other, breaking legs and shoulders; and they did this repeatedly, until at last they abandoned it, saying that his medicine was stronger than theirs, and they let him have his wife and child to take back to his camp. (1903:289-290; cf. Lowie 1918:107-119)

A Pawnee myth tells of how a robot-like buffalo skull devoured most of the inhabitants of a village. According to McHugh (1972:132-133), this myth apparently has been found in many parts of North America, and was told to inspire awe and respect for the buffalo skull, which was an important symbol in the ceremonies of many Plains tribes.

It is interesting to note that while the tales related above describe intimate relationships between humans and buffalo, they also involve violence and killing, or the threat of violence and killing, between the animals and humans. The relationship of the Plains Indians to the buffalo was intense, due to the Indians' heavy dependence upon the buffalo for subsistence. It was also a relationship with violence, as it involved the killing of the buffalo, which was sometimes a perilous undertaking for the Indian. These elements of the Indian-buffalo relationship are reflected in the Plains Indian myths. The Indians' respect and wariness of the buffalo as a powerful animal is also evident; in the myths, the buffalo are not only physically threatening, but also share and compete with the Indians in love and sexual relationships.

In Plains Indian mythology, buffalo also enter into beneficent, nurturing relationships with humans. In some tales, human infants and small children are adopted and raised by buffalo. In the following Assiniboine tale, which Lowie referred to as "The Buffaloes' Ward", a lost orphan boy is rescued and raised by a herd of buffalo:

There once lived an orphan boy, who was raised by his grandfather and grandmother. One day his grandmother packed her travois, strapped the boy to the frame, and went to fetch wood. The dog gave chase to a jackrabbit, and ran away with the baby. After a long while, he returned, but the child had fallen off. The old woman came home crying and told her husband what had happened. The old man asked the herald to announce that he wished some one to help him in searching for the child, and that he would reward those who aided him. Several young men came to his assistance, but their search was in vain.

The same evening a buffalo-bull was grazing with three cows and several calves. They found the lost baby. The bull picked it up, pitying it, and carried it the first day on their westward route. The next day a cow carried the infant, and nursed it. They took turns at carrying it. At last they arrived at a large lodge, the home of the buffaloes. There they brought up the foundling. When the boy was large enough to run about, one buffalo asked him, "Do you remember where you came from?" "No." Then the buffalo told him that he was different from them, not having any fur or hoofs. He pointed at the pemmican and berries they had kept for him, saying, "This is the food we raised you with, but *we* eat grass." He told him that he was born among the Indians, that his mother had died soon after, how his granny had strapped him to the travois, how he had been lost and found, and that he ought to see his own people. The boy did not know what "people" meant, so they explained it to him. They encouraged him to go through several ceremonies and promised to take him home. He answered, "I don't like to leave you, but if you take me to my own tribe, I shall be willing to go." They travelled with him for several days. When close to the camp, they halted. "Beyond that hill your grandfather is still living." A man walking on the outskirts of the camp discovered the boy. He offered to take him home. When the boy's grandparents heard a boy had been found, they thought this might be their lost grandson. They remembered cases where babies had been raised by foreign tribes and had ultimately returned. They went to the boy and questioned him, and he told the whole story. "The buffalo told me I had grandparents here." Then they made themselves known to him, and took him home.

At night, while the boy was resting, a voice was heard exhorting him to do what he had been told. In the morning, the old woman would ask what had happened. One day he made the following announcement. "I am going to call my grandfathers, and I want the people to aid me. I am going to call four buffaloes. Let a lodge be erected in the middle of the camp-circle. Let all that wish to help me bring new feathers, and beads, and shells and calico." The lodge was erected, and the gifts were heaped up inside. Then the boy started out over the hill and called four buffaloes from the herd that had raised him. They appeared in the distance. The boy went back to camp, and bade all the people tie up their dogs. Then four buffaloes came nearer in single file. They went right to the lodge. All the people looked at them. The boy entered also, put flannel around their necks, tied feathers to their hair, and divided the other gifts among them, telling them this was their reward for rescuing him.

> The buffaloes went away. The boy told the people his friends would come the next morning. Early the next morning the buffalo occupied the entire camp-circle. So far as anyone could look, nothing but buffalo were to be seen. The people were scared. They entreated the boy to save them and not have the buffalo trample them down. He replied, "They will not hurt you, they are only coming as visitors. Don't chase them now." He took what goods had remained, and distributed them among the buffalo. That night all the herd disappeared. The boy also vanished. He was not seen any more. (Lowie 1909a:187-189)

In a Crow Indian myth recorded by Simms (1903:290-294), an abandoned infant is raised by seven buffalo bulls. The child grows up to be an admirable, skillful man. The following is an extract from the tale, which Simms called "Old Man Coyote and the Infant who was Adopted by the Buffalo":

> Long time ago there lived a chief with his wife and a very beautiful daughter, whom all the young men of the tribe wanted to marry. But the chief would not give his consent.
>
> One day it became known that the daughter was to become a mother. Her parents decided to take her to a place where she could be confined unseen by any one. The mother inquired of the daughter who the father was, and the daughter said, "It is your husband, my father, who is the father of the child." Then the child (a boy) was born, they threw the body into a buffalo wallow. Shortly afterwards, seven buffalo bulls led by an old one, came up to the place to wallow. When the leader heard the baby, he stopped. One of the bulls said, "Why do you stop; we want to go to the north, and it is a long way." The leader replied, "There is a human being in that wallow and I am thinking whether to give him our power and raise him or pass on our way." One of the bulls, a rough one, said, "Let us raise him." The leader agreed, then backed away a short distance and ran up to the baby and tossed it in the air, and when it came down, it sat up. Another bull ran to the baby and tossed it in the air, and when it came down it was standing up. The third bull tossed the baby up, and it lighted on both feet and walked. The fourth tossed the baby up and it again came down landing on its feet and ran. "That is enough," said the leader, so they placed the baby on the neck of one, amidst the thickest of the hair, and covered the body with it and continued on their journey to the north. In course of time, the buffalo taught the boy considerable of the animal ways, such as hunting pastures, water, etc.
>
> Of his own accord, he made a bow and several arrows. The buffalo learned to love the boy devotedly and one day the seven bulls had a council, and the leader said, "Our boy has arrived at a marriageable age, and let us ask him his wishes as to a wife." They asked him, and he said, "I will marry one of my own people." So they prepared him for the journey home to his people, and instructed him

> in every way. They gave him a stuffed hawk and tied it to his scalp lock near the head and then gave him a long bow and wearing apparel. (1903:290-291)

In another version of this myth recorded by Lowie (1918:161-165), the former ward of the buffalo eventually has a son and sends him to the buffalo bulls to be raised by them. These tales of buffalo wards are interesting in that they reflect the important role of the buffalo as the provider of many of the needs of the Plains Indians.

MYTHS ABOUT BUFFALO HUNTING

One characteristic of the mythology of the Plains Indians that emphatically reflects Plains Indian culture is the abundance of references to the buffalo hunt (Lowie 1918:7). Since buffalo hunting was the predominant activity in Plains Indian life, it is often mentioned more or less incidentally in myths which are not specifically about hunting (this is evident in many of the tales related above). However, buffalo hunting is also the main subject of some tales, many of which are about how the Indians learned to hunt the buffalo.

The Blackfoot Indians were instructed in how to kill buffalo with the bow and arrow by Old Man as related earlier (Grinnell 1893:137-144). According to the Blackfoot genesis myth, after providing one group of people with this knowledge, Old Man travelled north to the area of the Porcupine Hills and later to the junction of the Bow and Elbow rivers, where he made more people and buffalo and instructed the people in how to hunt buffalo by driving them over cliffs, and in how to process the kill afterwards.

> Old Man kept on, travelling north. Many of the animals that he had made followed him as he went. The animals understood him when he spoke to them, and he used them as his servants. When he got to the north point of the Porcupine Mountains, there he made some more mud images of people, and blew breath upon them, and they became people. He made men and women. They asked him, "What are we to eat?" He made many images of clay, in the form of buffalo. Then he blew breath on these, and they stood up; and when he made signs to them, they started to run. Then he said to the people, "Those are your food." They said to him, "Well, now, we have those animals; how are we to kill them?" "I will show you" he said. He took them to the cliff, and made them build rock piles like this, >; and he made the people hide behind these piles of rock, and said, "When I lead the buffalo this way, as I bring them opposite to you, rise up."

> After he had told them how to act, he started on toward a herd of buffalo. He began to call them, and the buffalo started to run toward him, and they followed him until they were inside the lines. Then he dropped back; and as the people rose up, the buffalo ran in a straight line and jumped over the cliff. He told the people to go and take the flesh of those animals. They tried to tear the limbs apart, but they could not. They tried to bite pieces out but they could not. So Old Man went to the edge of the cliff, and broke some pieces of stone with sharp edges, and told them to cut the flesh with these. When they had taken the skins from these animals, they set up some poles and put the hides on them, and so made a shelter to sleep under. There were some of these buffalo that went over the cliff that were not dead. Their legs were broken, but they were still alive. The people cut strips of green hide, and tied stones in the middle, and made large mauls, and broke in the skulls of the buffalo, and killed them.
>
> After he had taught those people these things, he started off again, travelling north, until he came to where Bow and Elbow rivers meet. There he made some more people, and taught them the same things. From here he again went on northward. When he had come nearly to the Red Deer's River, he reached the hill where the Old Man sleeps. There he lay down and rested himself. The form of his body is to be seen there yet. (Grinnell 1893:142-143)

In the mythology of the Crow Indians, Old Man is also credited with teaching the people how to hunt and process the buffalo. In the Crow origin myth reported by Simms (1903:281-282), Old Man, after creating the first man and woman, makes the animal and plant life of the earth and then kills a buffalo, cuts it up and explains its parts to the man and woman. He then instructs them in how to make tools for hunting and butchering, in identifying the choice parts of the buffalo for eating, in how to fashion items of material culture from the buffalo, and in how to make fire. In another tale, which Simms referred to as "Old Man Coyote and the Buffalo", Old Man invents the buffalo jump method of hunting buffalo when he outwits a herd of buffalo as follows:

> Once when Old Man Coyote saw some buffalo, he wanted to eat them and tried to think of a scheme to do this.
>
> He approached the buffalo and said to them: "You buffalo are the most awkward of all animals,--your heads are heavy, your hairy legs are chopped off short and your bellies stick out like a big pot." The buffalo said to him, "We were made this way."
>
> Old Man Coyote said to them: "I'll tell you what let's do--we will run a race"--and all went to a level place with a steep cut bank at one end. Old Man Coyote said to himself, "I will go and put my

> robe over the edge of the bank," and turning to the buffalo, he said, "Just as we get to the place where my robe is we will all shut our eyes and see how far we can go with our eyes closed." The race was started, and just before getting to the robe, all of the buffalo shut their eyes and jumped over the steep cut bank and were killed; and Old Man Coyote feasted off of the dead buffalo. (1903:285; cf. Lowie 1918:19-20)

In addition to the mythic tradition about the first buffalo drive among the Blackfoot Indians (related above), the Blackfoot tell a tale about the peculiar circumstances of the _last_ buffalo drive among one of their tribes, the Piegan. The tale, reported by John Ewers (1958:83-84), is quoted in a previous section on the abandonment of the pound and jump methods of buffalo hunting.

Examples of tales which describe the adventures of individual buffalo hunters include the two Crow Indian myths reported by Lowie (1918:269-271), which are provided in the preceding section of this report.

Another Blackfoot myth related to hunting is the tale of the origin of the _iniskim_, or buffalo rock. Several buffalo rocks were found by the Blackfoot after the original _iniskim_ was found. A version of the original _iniskim_ myth recorded by Barrett (1921a:82-84) has already been quoted as an example of pre-hunt rituals. Two versions of the myth of the original buffalo rock recorded by Wissler and Duvall are as follows:

Piegan Version

> Now listen. I suppose you are asking about the iniskim [buffalo rock], about the way we first came to get it. At a place called Elbow-on-the-Other-Side [in Canada] it was found. The woman who found it was very poor. Her name was Weasel-Woman, and her husband's name was Chief-Speaking. Well, now you will hear the true account.
>
> At a curved cut bank called the Place-of-the-Falling-off-without-Excuse it was found. This woman was walking around there among fallen timber [logs]. Her people were all about to die of starvation. She had come out for wood, and was walking around picking up pieces of bark. Then she came to some berry-bushes on all sides of a log and began to pick white berries. Now she heard something singing. The first that she heard was "Ho-o-o-o!" as if some one were making the wing-like movement. Near her was a log pointing toward the setting sun. The singing was in the log. An iniskim was sitting in a broken-out place at the end on a bed of shedded buffalo hair and sage-grass. She could just hear it sing. She stood with her head to one side, listening for a time. Then she began to pick berries again. Now she heard it:--

"Yonder woman, you must take me.
I am powerful.
Yonder woman, you must take me,
You must hear me.
Where I sit is powerful."

Now that is the way it sang to her. As she was walking towards the place from which the sound came, she saw that the object sitting in the broken place was the one that did it. Then it said, "Ky-ja, this is where it is singing." She did not know what kind of a thing it was. She thought that perhaps it was a mouse or a bird. As she slowly removed the shedded hair that covered the place, she saw it. It was a rock, a buffalo-rock. As she was standing over it, it said, "Do not take me yet. Go back and then walk slowly towards me." [It is now teaching her the songs and ceremonial procedure.] While she was approaching, it sang a song for the woman.

"A buffalo-rock, I am looking for the
place where he is sitting.
Now I have found him. [Takes it up.]
He is powerful.
A buffalo-rock, I have taken him up.
He is powerful."

This is the song when she went forward to take it up. This is the time when it told her that she should sleep out in the brush for four nights. It said, "I will show you everything about it. You, I have taken pity on you. Now you will be out four nights, and in eight nights you will get something to eat, you will sit down with great abundance."

Now when she came home again she stood outside and said to her husband, "Do not be angry. I have received something [medicine-power]. We shall have something to eat. Chief-Speaking, do not think I am double married [committed adultery]. The reason I have been sleeping out is that I have received something. It is not valuable [meaning the reverse], but it is to be the only thing [medicine] you are to live by." Her husband said, "Now where is it?" Then he saw it. "Now," he said, "she slept outside, and this one [the rock] sang for her." Then she came into the lodge. Her husband was a beaver-bundle man, and there was always a crowd of men in the lodge. He said to his head wife, "Give that woman your clothes, she who is very poor.

Now Weasel-Woman expected to receive tallow. They looked about for fat or grease, but every kind that was offered her was refused. At last they offered her some kidney-fat. Then she said, "That will do." She put it down there, then she sang. She was going to feed them all with it. She told the men to get their rattles ready. Then she sang:--

"This man says,
'Kidney-fat, I want to eat it.'"

Then she sang about herself:--

"Woman says,
'Kidney-fat to eat, I want to eat it.'"

In the circle was a young unmarried man who had been chosen to lead the buffalo over [the drive]. She said to him, "You sit here at the head of the lodge. I shall paint your face first. You are going to eat first, for you are to drive the buffalo." Then he sat by her. Now she was painting his face. She was going to give him something to eat, and, changing the words of the song, teach him the way he should sing it when the buffalo were being driven up; also tell him how he should stand at the edge of the declivity where the buffalo are to fall over. He was to sing four times:--

"I want to fall [them].
Kidney-fat, I want to eat it."

The reason for all this was that the people might be fed.

"Now," she said to her husband, "you are to handle this iniskim. Men are always better at it than women. Such things are not in keeping with the way we live. It will give you dreams [visions]. We will use it for a long time [live long]." "Yes, you are right," said her husband.

Now she painted the young man's face. Now he was about to hear the song. Her husband was making the medicine-smoke. She took the young man's hand.

"Man says, 'Woman, iniskim, man.
They are powerful.'
Man says, 'Those rocks, I move them
around.
It is powerful.'
Woman says, 'Those rocks, I move them
around.
It is powerful.'"

"Good running of buffalo.
The driver is coming with them.
We have fallen them.
We are happy."

Northern Blackfoot Version

The first people, those are the ones that found the buffalo-rock. Nearly starved were all the people. A man said to his wife, "Get some wood and build a fire." She said, "I am not strong enough; I am nearly starved." "Go on," said he. "There is no firewood here." Then she arose, saying, "I shall go after firewood." She came to a place where there was wood, and, standing beside it, picked it up slowly. She was so weak that the exertion was painful. Then she heard singing, and looked around. At last she saw it. On the cut-bank's side she sat down. The thing doing the singing was the buffalo-rock. The earth was sliding down: that is how she came to see it. While it was singing, the rock said, "Take me, I am powerful." On buffalo-hair it was sitting for a bed. It stretched out its arms. In order that food might be obtained is the reason she saw it. She took it up, wrapped it in the hair and put it inside her dress. Now she knew some food would be obtained. She went back to the camp. She went to her husband's lodge. She went inside. She said to her elder sister, "Tell our husband that I shall make medicine." So the elder one said to him, "My younger sister is about to make medicine." He said, "I have faith. Let her make medicine that we may have food." Then he called out, inviting the camp. All came to the lodge,--men, women, and children,--all came inside. "There is going to be medicine," he said. To the women and children he said, "Sit here" [the rear]. "Get some tallow," said he, "just a little." Then every one looked for it. A long time they had to hunt before finding any.

Then the woman rubbed the fat on the rock. It began to sing when she did it. It sang to the woman, "Take me, I am powerful." The people all saw it. The woman passed it to them, and all kissed it. "You shall have food," she said. Then she began to sing and then to dance. All joined in the dancing. They made a noise like the buffalo. The woman sang, "A hundred shall I lead over" [the drive]. She said, "When you sing, do not say more than a hundred." Now a man said when he sang, "Over a hundred shall I lead over" the drive. The woman said, "We have made a mistake now. So many will go over, that the enclosure will be burst; they will jump out of it. There will be a solitary bull wandering through the camp to-night. It will be a mangy bull. No one shall kill it. Some one must go up the hill and watch the morning. Look-Backwards, you are to go; buffalo you will see. The-One-We-Made-Look-There, also watch. From there you will see buffalo. If that bull comes to-night, we shall all be saved. If this rock fall on its face, then you will all be happy. There will be plenty of food." All went out. They were happy, because they were to receive food. The woman slept where the smudge was made. That rock made her powerful.

He came through the camp, the one she said was coming,--the mangy bull. They all knew him. They all said, "Ah-a-a! don't kill him. Rub his back with firewood." In the morning all were happy because the mangy bull came at night. They did not kill him, the one that was said to come at night. When the woman looked out, that rock fell over on its face. Then she told them to be happy, because they would have something to eat. "It would be so, if it fell on its face," she said. Looking up, the people saw many buffalo close to the camp. Then the swift young men went out and led the buffalo, many of them. They worked them into the lines. They frightened them to make them run swiftly. Then all ran over into the enclosure. Now the people ran there. Inside were the buffalo. So many were there

> that the enclosure was broken down. Over a hundred were there. That is why they broke down the fence. Not many of them were killed. All the buffalo were bulls. That is why they broke down the fence.
>
> The woman's husband took all the ribs and back-fat, saying, "With these shall a feast be made. Again my wife will make medicine." The people were somewhat happy as the number killed was small. "For a little while we are saved. We have a little meat," said the man.
>
> The next night it was called out again that the woman was to make medicine. This time she gave orders that only the women were to dance, so that cows might come to the drive. So the women danced. The men tried not to make another mistake. In the morning they looked from the hill again. They were made glad by the rock falling again on its face. Again the young men went out, and all was as before. Now all in the enclosure were cows. They were all killed with arrows. None of them got out.
>
> The people were happy now. They had plenty of meat. Every one now believed in the power of the rock. The woman who found the rock was respected by her husband. (1908:85-89; original brackets)

Grinnell recorded the following version of this tale:

> A small stone, which is usually a fossil shell of some kind, is known by the Blackfeet as I-nis'-kim, the buffalo stone. This object is strong medicine, and, as indicated in some of these stories, gives its possessor great power with buffalo. The stone is found on the prairie, and the person who succeeds in obtaining one is regarded as very fortunate. Sometimes a man, who is riding along on the prairie will hear a peculiar faint chirp, such as a little bird might utter. The sound he knows is made by a buffalo rock. He stops and searches on the ground for the rock, and if he cannot find it, marks the place and very likely returns next day, either alone or with others from the camp, to look for it again. If it is found, there is great rejoicing. How the first buffalo rock was obtained, and its power made known, is told in the following story.
>
> Long ago, in the winter time, the buffalo suddenly disappeared. The snow was so deep that the people could not move in search of them, for in those days they had no horses. So the hunters killed deer, elk, and other small game along the river bottoms, and when these were all killed off or driven away, the people began to starve.
>
> One day, a young married man killed a jack-rabbit. He was so hungry that he ran home as fast as he could, and told one of his wives to hurry and get some water to cook it. While the young woman was going along the path to the river, she heard a beautiful song. It sounded close by, but she looked all around and could see no one.
>
> The song seemed to come from a cottonwood tree near the path. Looking closely at this tree she saw a queer rock jammed in a fork, where the tree was split, and with it a few hairs from a buffalo,

> which had rubbed there. The woman was frightened and dared not pass the tree. Pretty soon the singing stopped, and the I-nis'-kim [buffalo rock] spoke to the woman and said: "Take me to your lodge, and when it is dark, call in the people and teach them the song you have just heard. Pray, too, that you may not starve, and that the buffalo may come back. Do this, and when day comes, your hearts will be glad."
>
> The woman went on and got some water, and when she came back, took the rock and gave it to her husband, telling him about the song and what the rock had said. As soon as it was dark, the man called the chiefs and old men to his lodge, and his wife taught them this song. They prayed, too, as the rock had said should be done. Before long, they herd a noise far off. It was the tramp of a great herd of buffalo coming. Then they knew that the rock was very powerful, and, ever since that, the people have taken care of it and prayed to it. (1893:125-126; original brackets)

MISCELLANEOUS MYTHS OF THE BUFFALO

There are also numerous miscellaneous tales in which buffalo play a variety of roles. An example of one of these myths is the Blackfoot tale of "The Ghosts' Buffalo", in which a group of young hunters encounter a camp of ghosts and witness a buffalo hunt by one of the ghosts (Grinnell 1893:132-134). Another example is the Assiniboine myth of "The Buffalo-Boy", in which a Blood Indian is carried by an eagle to a crag on a mountain, and carried back to earth again four days later, and presented with some feathers by the eagle; the feathers keep him safe from the harm of buffalo he meets on his way home (Lowie 1909a:189-190).

In summary, Plains Indian buffalo myths are directly concerned with all aspects and characteristics of the buffalo and its interaction with the Indians, with particular emphasis on the origin of the buffalo, the spiritual and physical power of the buffalo, and the intense relationship between the Indians and the buffalo. The myths related above illustrate that the Indian's relationship with the buffalo was the focus of a large portion of the spiritual and emotional life of the Plains Indians.

CEREMONIALISM AND THE BUFFALO

Given the importance of the buffalo to the subsistence of the Plains Indians and the reverence the Indians had for the buffalo, it is not surprising that the animal figured in many of the ceremonies and rituals of the Plains Indians. In addition to ceremonies directly connected with buffalo hunting, such as game charming ceremonies (discussed previously), they also had a variety of other ceremonies and ritualistic observances which involved the supernatural power of the buffalo in various ways.

Some ceremonies and ritualistic objects were said to have been gifts from the buffalo. For example, a Sarcee medicine-pipe known as the "otter-carrying-strap" was said to have been received from the buffalo by a Sarcee Indian in a dream (Wissler 1912:161). Two dances amongst the Gros Ventre, the Old Men's Dance and the Old Women's Dance, were considered gifts from the buffalo, although the circumstances under which they were given are no longer known. Both of these were buffalo-calling dances in which the dancers imitated buffalo (Cooper 1957:236). The Sacrifice Dance of the Gros Ventre, which is commonly called the Sun Dance, was also a gift from the buffalo, according to an informant of Cooper.

> The origin Story of the Sacrifice Dance as told by The Boy is as follows:
>
> "In the days when Ni:həhat was still around, a Gros Ventre man went out hunting in the timberland where there was a lot of trees and brush. While he was hunting he heard a noise. He listened to find the direction from which the noise was coming and then went in that direction. He sneaked around and looked from under cover. He saw a dance going on. A bunch of buffalo were dancing in a circle. He looked on a long time unseen by them. He heard the songs they were singing and learned them, and saw how everything was done. He saw a buffalo bring the other buffalo and set them in a semi-circle, and saw them sit down in a semi-circle.
>
> "He made up his mind to approach them. So he walked over to where they were. When the leader of the buffalo, at the back of the lodge opposite the door, saw him, he invited him to come in and sit down beside him: 'Do like we are doing. Look around and see how the lodge is made. Study it and try to remember it and all the things here.' The man saw a buffalo skull alongside the center pole.
>
> "The chief buffalo then said to him: 'I give you this lodge (dance). Use it. If in sickness or in danger the people promise they will make a Sacrifice Dance I will help them. When you implore the help of the Sacrifice Dance, it will be a powerful means to avert sickness or danger.' So the man left and went back home and related what he had seen and experienced. He is the one who introduced the Sacrifice Dance among the Gros Ventre people." (1957:183-184)

As noted earlier, the prayers of the Plains Indians generally were to the Supreme Power, but other intermediary powers, of which the buffalo was one of the most powerful, usually interacted with the rendered assistance to the Indians. Thus, although it was the Chief Buffalo that promised to give aid to those who performed the Sacrifice Dance, the buffalo was not the object of prayer during the dance.

Parts of the buffalo were widely used in ceremonial dress. For example, among the Blackfoot, buffalo hide with the hair was used to fashion the headdresses worn by beaver bundle owners and some members of the Woman's Society, _Ma´toki_ (Ewers 1955:151). Among the Mandan, the men who performed the Bull Dance (a buffalo charming dance) wore masks made of buffalo hide with the horns attached to the sides and a tail braided into the back (McHugh 1972:54; Thomas and Ronnefeldt 1976:212). The highest ranking woman's society of the Mandan, the White Buffalo Cow Society, wore buffalo robes and headdresses of white buffalo hide when they performed their buffalo-calling dance (Mails 1973:179; McHugh 1972:54-55). The Women's Buffalo Society of the Arapaho, who performed their dance as a prayer for the recovery of an ill relative, wore headdresses, made of a piece of beaded buffalo hide with horns attached, over the head and shoulders like a hood (Mails 1973:207-208). In the dance of the Piegan Bull Society, which was probably a buffalo calling ceremony, all of the members wore buffalo robes with the hair side exposed. Some of the men wore horned bonnets formed from the scalp skin of the buffalo. Others wore more conventional war bonnets with erect feathers and tail pieces, known as "boss rib bonnets". Two men wearing horned caps wore robes of the rough skin of aged bulls and were known as Scabby Bulls (Mails 1973:121; Wissler 1913:405-408). In the Blood Horn Society, a religious cult which subscribed to a specific way of life and certain teachings, the two male leaders wore bonnets bearing horns (Mails 1973:129-132; Wissler 1913:410-418). The Piegan Front Tail Society was known as such because the dancers' costume included a special belt decoration, the "buffalo tail seen from the front"; this decoration consisted of a stick wrapped in the skins of two buffalo tails and hung from the side of the dancer's belt (Wissler 1913:388). The Cheyenne had a sacred buffalo hat with great spiritual power. The main covering was cut from the skin of a buffalo cow's head and was adorned with large blue beads. Two cow horns, engraved with geometric designs in red, were attached to the sides of the hat (Grinnell 1923, Vol. 2:337; McHugh 1972:119).

Various parts of the buffalo were also commonly used as ritualistic objects. The buffalo skull was prominent in numerous rituals, including the important ceremony commonly known as the Sun Dance, which was the high point of the annual cycle of the Plains Indians. This ceremony was, among most tribes, a tribal ceremony. According to Spier (1921:459), the Sun Dance was found throughout the Plains area, except among the southern and southeastern marginal tribes. Wissler (1974:124) noted that some form of the Sun Dance was reported for all Plains tribes except the Comanche, Omaha, Iowa, Kansa, Missouri, Osage, Oto, Pawnee, Wichita, and Nez Percé. The Mandan had an ornate ceremony known as the Okipa, which was not a Sun Dance but contained some elements similar to it (ibid.). The specifics of the ideology and procedures of the Sun Dance varied considerably from tribe to tribe, although it is possible to sketch a general description of the ceremony (Spier 1921:460). Wissler summarized the ceremony as follows:

> One of the most important tribal ceremonies is the so-called sun dance. The name as used in literature is probably derived from the Dakota who speak of one phase of the ceremony as sun-gaze-dancing; i.e., the worshipper gazes steadily at the sun while dancing. To a less extent, this is one of the objective features of the ceremony wherever performed and is occasionally associated with a torture feature in which skewers are thrust through the skin of the breast and back and the devotee suspended or required to dance until the skin gives away, all the time supplicating the sun for divine guidance.
>
> Another feature is that in the center of the ceremonial place is set up a tree, or sun pole, which is scouted for, counted coup upon, and felled, as if it were an enemy. Upon this, offerings of cloth are made to the sun. In the fork at the top is usually a bunch of twigs, in some cases called the nest of the thunderbird. Within the enclosure on the left side an altar is made.
>
> The time of the sun dance is in midsummer. It is usually initiated by the vow of a man or woman to make it as a sacrifice in return for some heeded prayer in time of great danger. The soldier societies, the women's society, and other organizations, generally take turns dancing at the sun pole after the above-named rites have been concluded. As a rule all who perform important functions in the sun dance are required to spend several days in fasting and other purification ceremonies. . . .

> When we consider the total distribution of the sun dance it appears that its ceremonial complex, like that for soldier societies, presents several features variously combined and distributed. These are the torture, the circular shelter of poles, the use of a sacred bundle, the altar, the erection of a sun pole, and the dancing ceremonies. (1974:121, 124)

A preliminary activity of the Sun Dance among several tribes, including the Blackfoot, Gros Ventre, Sarcee, Crow, and Wind River Shoshone, was the accumulation of buffalo tongues for a feasting rite held prior to or during the ceremony (Spier 1921:463-464). Among the Blackfoot, the woman who had made the vow to hold the Sun Dance called upon her relatives to accumulate the buffalo tongues for the dance. Tongues were collected during the spring hunts, and were sliced, parboiled and dried in a special ceremony known as the "Ceremony of the Tongues". This took place some time before or on the first day of the Sun Dance, depending on when a sufficient number of tongues had been gathered (Wissler 1918:234-240; cf. Lowie 1915b:10-12). Another part of the buffalo used ritualistically in the Sun Dance was a buffalo hide, the use of which Spier described as follows:

> Another preliminary series of activities is to obtain a buffalo hide which is later hung on the center pole. A special hunt is made by Wind River, Crow, Blackfoot, Gros Ventre, Arikara, Arapaho, and Kiowa, and in each case, except Wind River and Blackfoot the animal must be killed with a single shot. There are four hunters among the Wind River, Blackfoot, and Gros Ventre, two or four among Crow, one or two among Kiowa, and three among Arapaho. The returning Crow hunters are met by scouts, the Arikara hunters by priest and dancers. The whole skin of the animal is secured by Crow (who obtain two), Blackfoot, Gros Ventre, and Arapaho, while only a portion, comprising head, a strip down the back, and tail, are taken by Kiowa, Wind River, and Arikara. The Hidatsa also make use of such a strip, but a special hunt for it has not been noted. In most cases this skin is later placed in the forks of the center pole. The exceptions are Blackfoot and Gros Ventre, who cut the hide into thongs with which the dance lodge is tied. The Sarsi do the same, although the special hunt is not noted for them. (1921:464-465)

Some tribes, such as the Shoshone, hung a buffalo head from the center pole (Hultkrantz 1973:Plate XVIIc; Mooney 1896:980).

As noted previously, the buffalo was an important part of the Sun Dance ceremonies of many tribes. Most tribes used one or more buffalo skulls in the altar of the Sun Dance lodge.

> Auxiliary parts of the dance lodge include altars, screens, and dancing booths. Most tribes (Ute, Wind River, Arikara, and Sisseton may be exceptions) have an altar, that is, a formally arranged group of sacred objects, on the side of the dance lodge opposite its entrance (corresponding to the place of honor in the tipi). It consists of one or more prepared buffalo skulls (the Blackfoot provided the only exception), usually placed near an excavated or cleared area decorated with a formal arrangement of brush, etc.
>
> An excavated or cleared area forms the center of the altar among Blackfoot, Sarsi, Arapaho, Northern and Southern Cheyenne, Oglala, Ponca, Assiniboin, and Plains-Cree. That of the Assiniboin is the simplest, a rectangular area with a buffalo skull. The Ponca have a round area bordered with an arc of sage on which the skull rests. That of the Oglala is similar: an oval area, according to Fletcher, before which the skull is laid on the cut-out sod, or a half-moon area on which the skulls stand according to Dorsey. The altars of Arapaho and both Cheyenne groups are the most elaborate and are nearly identical. The Blackfoot and Sarsi altars are probably related to this type, particularly that of Southern Cheyenne, since the screen of boughs forms a booth in all three. Further evidence lies in the fact that the principal dancer dances in the altar only in these four tribes.
>
> The altars of other tribes are simpler. The Plains-Ojibway, like the Plains-Cree, plant hooked sticks before the skull. Kiowa and Hidatsa build two crater-like pits or mounds to contain in the incense-smudges: those of the Hidatsa suggest the brush decorated sods of the Arapaho altar. (Spier 1921:471)

Some tribes placed a specially decorated skull at the base of the center pole, the colors and designs having ritual significance (Bancroft-Hunt 1981:102-103; G. Dorsey 1905:96-97; Kroeber 1908:264; McHugh 1972:112). In a Cheyenne Sun Dance witnessed by George Dorsey in 1903, the following ritual was performed while decorating the buffalo skull:

> While the priests under the direction of the Chief Priest were preparing the ceremonial costumes of the Lodge-maker and his wife, the assistant Chief Priest had been working continuously for over an hour on the buffalo skull. First he took up the bundle of swamp grass and began to fashion three large plugs for the two eye sockets and the nasal cavity . . . [He] made four moves with his hand and picked up one of the grass plugs and moved it four times toward the eye socket and inserted it. He repeated these motions while he placed in position the second plug. He then completed the piece which was to be placed in the nasal cavity; attempting to insert it, he discovered that the nasal bones were in the way. As he broke these out, one of the priests remarked that work of that nature should be done outside the lodge.

> He knelt down behind the skull and painted a black line along the median line of the skull from back to front. The line was about an inch in width and represented the road to the four medicine spirits. Parallel with this and on each side he painted a narrower line in white, which also extended from the base to the anterior part of the skull. He then painted the remainder of the skull, including the horns, red. The white lines represented day, the black night, the red of the skull the earth. He then painted the two grass plugs in the eye and nasal sockets red; they represented the vegetation of the earth. He next painted on the right jaw a large circle in solid red, representing the sun, and on the left jaw, in black, a crescent, or moon symbol, making four passes with his finger before he began painting these two symbols. He then wrapped up the paints and placed the bags by the side of the sacred bundle, and the temporary altar was complete (G. Dorsey 1905:96-97; cf. Kroeber 1918:266).

Buffalo skulls were also used in the most widely known feature of the Sun Dance, the so-called "torture" ritual, which was a series of mortifications performed by the dancers, including fasting, thirsting, continuous staring, dancing without cessation, severing flesh, fingers, etc. (Spier 1921:474). The common mode of self-torture was tethering or suspending the dancers from the center pole by ropes attached to skewers inserted through the skin. In most tribes, buffalo skulls and other heavy objects were also hung from incisions in the flesh (G. Dorsey 1905:179; Hultkrantz 1973:16; McHugh 1972:113; Spier 1921:474). Similar self-torture was also involved in the annual religious ceremony of the Mandan Indians, the Okipa (Catlin 1926:191-194; Hultkrantz 1973:17).

According to an informant of Clark Wissler (1918:261), a buffalo tail always hung down from the center post of the Blackfoot Sun Dance Lodge, above the fire pit. Standing beneath the tail, warriors recounted their heroic deeds and placed a stick on the fire for each accomplishment. It was a great honour if a man could tell enough deeds to raise the fire high enough to scorch the tail. Kroeber (1908:264) noted that a buffalo tail was attached to the center pole of the Gros Ventre lodge.

The Sun Dance was essentially a re-creation ceremony, concerned with the sacred rejuvenation of the world (Hultkrantz 1973:9). The name the Cheyenne gave to this ceremony was the "New-Life-Lodge". Performance of the ceremony was supposed to re-create, to re-form, to re-animate the earth, vegetation, animal life, etc. (Dorsey 1905:57). The Plains Cree claimed the dance was a thanks-offering to the Great Spirit for the re-awakening of all nature after the silence of winter. The Kiowa believed it warded off sickness and caused happiness, prosperity, children, success in war and plenty of buffalo (Hultkrantz 1973:9). Within the context of the rejuvenation of the natural world, it is quite understandable that the buffalo was represented in this ceremony, being the ultimate natural feature on which the Indians relied and an animal greatly revered as a dominant supernatural power.

Among several Plains tribes, a buffalo skull was also used in the ceremonial sweathouse procedure (McHugh 1972:114). Some tribes considered sweating a necessary purification before taking part in a ceremony (Lowie 1963:186), as among the Blackfoot, where all important ceremonies required a sweat house. A special form of sweat lodge was used for the Sun Dance, the frame requiring one hundred willows instead of the usual twelve to fourteen (Wissler 1912:257). A buffalo skull, painted with red spots on one side and black spots on the other and with sagegrass thrust into the nose and eye-sockets, was placed on top of the sweathouse facing east or on a mound of earth west of the sweathouse (Wissler 1918:250, 252). At the conclusion of the ceremony, the covers were removed from the frame of the sweat lodge and the skull was left sitting on top of the willow frame (ibid.). A buffalo skull was similarly used in the sweat lodge for medicine pipe ceremonies (Wissler 1912:146, 155). Among the Blackfoot, the shape of the hole dug in the center of the sweat lodge for the hot stones varied, depending on the type of ceremony for which the sweat was conducted. A triangular shape, when used in a sweat lodge for medicine pipe transfer ceremony, represented the heart of the buffalo (ibid.:155). On other occasions, a triangular hole was said to represent the head of the buffalo (ibid.:258). In the sweat lodges of several Plains tribes, in particular, the Blackfoot, a buffalo tail was used to beat the skin during the sweat and sprinkle water on the hot stones (McHugh 1972:98; Wissler 1912:258), while the men made a grunting sound, the conventional sign for buffalo. Buffalo horn spoons were also used to pour water on the hot stones in the pit. Buffalo robes covered the willow frame of the lodge (Wissler 1912:257-258).

According to Grinnell (1923, Vol. 2:103), a buffalo skull was propped up against a sagebrush, pile of stones or mound of earth outside every Cheyenne sweat lodge. Curtis (1909, Vol. 6:117) observed that a buffalo skull was always placed in front of and looking toward the lodge. The man holding the sweat ritual would light his pipe and pass it among the men in the sweat lodge. He then would take the pipe outside and lay it against the buffalo skull with the stem resting between the horns.

The buffalo skull figured in a variety of other ceremonies and ritualistic practices. For example, the Mandan Indians of the Upper Missouri used buffalo skulls to mark burial sites. They arranged human skulls from bodies that had previously been buried on scaffolds in circles twenty or thirty feet in diameter. On a mound of dirt three feet high in the center of each circle rested two buffalo skulls (male and female) and a "medicine pole" about twenty feet high (Catlin 1926, Vol. 1:102). Among the Plains Cree, a buffalo skull was placed in the center of a tipi during group confessions (McHugh 1972:115). Among the Assiniboine, hunters would paint and bind a bull's head with scarlet cloth, painted feathers and sticks and address the head, announcing that this was done so they would not be gored by a buffalo (Denig 1930:536). Lowie observed that the Crow Indians used a buffalo skull in the Medicine Pipe ceremony whereby an initiate was adopted by a pipe owner, thus also becoming an owner. The most frequent reason for vowing to be adopted by a pipe owner was serious illness on the part of the person or one of the person's close relatives. An extract from a Crow informant's description of this ceremony follows:

> Finally comes the time of the adoption. Two large tents are joined for the lodge, and at a short distance from it is the preparatory lodge. The Pipes are spread there. They take in fine clothes for the tyro and his wife, who dress in ragged clothes and hide in some tent. A buffalo skull is taken and carried a good distance from the camp; they carry it by means of a cord made from braided grass of the wide-bladed variety. Then they go through camp looking for the two best dancers among the young men; to each of these is given a Pipe and they stand at the door of the preparatory lodge. The rest sing and the dancers dance outside. The 'father', holding a knife, an old ax, and an awl and probably a second ax and awl, leads the way to the skull, followed by the Pipe-owners and dancers. After arriving at the spot, the singers sit facing it at some distance, while the dancers stand in front of it and 'father' and 'son' sit on either side of it. A war-captain recites a coup: "I went to such and such a tribe and brought back a scalp" (or some equivalent exploit). Then the warrior takes the knife, points out the direction in which the event took place, punches a hole into the ground behind the skull and keeps the knife. The dancers do not sit down but gently sway the Pipe. Four articles are each taken by a war-captain who recites a coup with it.

The party leave the skull and return to camp to seek the novice. Women walk behind the men, helping them sing. They sing four songs as they go round the camp in search of the candidate. At last they find his hiding-place, halt at the door and point the Pipe at it. A song is sung and a war-captain recites aloud four of his coups, whereupon he steps aside and the dancers enter, followed by the Pipe-owners. They see on which side the novice sits, walk round from the other direction and offer him the Pipe. He takes a puff. They say, "This very day you will own this Pipe." First the dancers, then the owners and finally the 'father' takes the novice by the little finger of his right hand, while the 'mother' takes the corresponding finger of the left hand. Thus they make him march around and then go outside with him. The adopter has the privilege of asking someone to appoint a skull-bearer. This officer marches behind the owners but in front of the adopters. The skull is painted.

They now march to the big lodge, enter it, and circle round four times, whereupon they take seats in the extreme rear. The skull-bearer sits at the extreme left of the circle, the two dancers at the extreme right, all the others in between. A herald announces that the tyro's relatives should bring spreads for the skull, and they hurriedly bring fine blankets, on which it is gently set down. Then the crier summons the relatives to bring gifts, and they deposit them before the skull. Two Pipes are planted in front of the dancers. As soon as the singers begin their music, the dancers dance with a Pipe in the left hand and a rattle in the right. The presents piled in front of the skull are distributed by the adopter, the rest belong to the skull-bearer. All the horses brought fall to the adopter's share.

The 'father' says, "Well, let us bathe (cleanse) our child." He takes bunches of pampas grass and crosses two of them at right angles. Next they look for the striker of an undisputed coup. The Pipe-owners place a pail of water there, to which the 'father' takes his 'child.' Then the candidate steps on the crossed grass and the coup striker, standing to the right of him, recites a deed. The adopter takes a Pipe into his right hand and a cup into his left, holding it over the head of the 'child.' The coup-striker holds an awl in his hand. As soon as he has done, he touches the bottom of the cup with the awl, whereupon the adopter gently tilts the cup over the novice's head and wipes it with the cob of the Pipe bundle. Then he takes a whole roll of calico to wipe the head, afterwards throwing it towards the door, where the people scramble for it. When the first coup is recited, the candidate stands at one point of the cross; for the three following coups he occupies successively the other points of the cross in clockwise order. Finally they take the novice to the rear of the lodge, where he is to be dressed. All the owners congregate there, form a curtain with blankets, and paint him up according to the adopter's style. To his head they tie eagle plumes from the Pipe. Then they take their seats again and finally march to the novice's tent, where a feast has already been spread. The skull is taken to the outskirts of the camp, where it is not likely to be trodden on.

> In the novice's tent the Pipes are placed in a position corresponding to that previously occupied by them; the singers sit in the rear, the novice at the extreme right, the dancers where they please. The 'father' takes a piece of meat, and moves it in a circle before him while the musicians are singing. This episode symbolizes the feeding of young eagles: the novice throws out his hands and four times moves his mouth in imitation of the young birds. At the fourth time they allow him to take the food, then the adopter serves the rest to those present.
>
> Next they order the tyro to hunt for a long lodge pole and point it towards them. The point of the pole is laid inside the lodge. The 'father' takes the Pipe and hands it to the novice, who grasps it, whereupon the adopter puts both of his hands round the novice's and after four songs have been sung he says, "Now I give it to you." The novice ties the Pipe to the point of the lodge pole and places it among his tipi poles so that it can be seen waving there. It is left in this position for the remainder of the day. In the evening the novice goes to his 'father,' who takes down the Pipe and places it in the rear of the lodge above the draft-screen. In the morning the novice again goes to his 'father,' who puts it back among the lodge poles. This is continued for four days in succession, whereupon the 'father' wraps up the Pipe and puts the bundle crosswise above the draft-screen saying, "It is yours, it is not mine any longer." Then the novice is the real owner.
>
> Thereafter, when a person gets sick, he may make a promise that on recovery he will feed the Pipe. The convalescent would visit the Pipe-owner, who would call the other owners, and they would sing and have a jollification. War captains would take the Pipe on their parties and tie a lock of the enemy's hair to it. (Lowie 1924:342-344)

Even buffalo chips were put to ceremonial use by the Plains tribes. For example, they were used as resting places for sacred objects (McHugh 1972:116). When a Blackfoot Black or Yellow Buffalo painted tipi was ceremoniously transferred to a new owner, the purchaser was given a round piece of buffalo dung covered with a bladder. When he smoked he would rest the bowl of his pipe on the buffalo chip; this ceremonial object was transferred to the new owner along with the tipi (Wissler 1912:233). Among the Cheyenne, when a ceremonial stone pipe (believed to have special power and, on occasion, used to cure the sick) was unwrapped, its bowl was set to rest on a bed of white sage stems topped with a buffalo chip (Grinnell 1923, Vol. 2:137). When a Cheyenne warrior took a scalp for the first time in his life he was taught by an older man how to treat the scalp properly and prepare it for transportation to the village. The instructor lighted the pipe and held it toward the sky, the ground and the scalp, and said a prayer. The scalp was then laid out on a buffalo chip and the flesh was ritualistically trimmed away from the scalp. Another man was then told to carry the buffalo chip away, with the pieces of flesh resting on it, and to leave it on the prairie. The scalp was transported back to camp attached to a willow pole (ibid.:37-38).

Among the Blackfoot, buffalo chips were used in some pre-hunt ceremonies. For example, in the iniskim (buffalo rock) ceremony, such as in the myth of the original ceremony described by Barrett (1921a:82-84), the woman who found the iniskim instructed her husband to make an altar by placing a circle of soft soil at the back of the lodge interior and to place some buffalo chips, topped with wild sage, in front of the altar. During the ceremony the woman placed the buffalo stone on the altar. According to an informant of Claude Schaeffer (n.d.), the iniskim rested on top of one of the buffalo chips during such a ceremony.

The hair of the buffalo also was used in the ceremonial life of the Plains Indians. For example, the Blackfoot kept their iniskim wrapped in buffalo hair and enclosed in the skin of an unborn calf (Wissler 1912:243).

When the importance of the buffalo was not demonstrated in some material aspect of a Plains Indian ceremony, it was often evident in the songs, dances and prayers of the ceremony. Most tribes had at least one society or dance association that derived its name from the buffalo. For example, the Piegan, Blood and Northern Blackfoot each had a society known as the "Bulls". The Blood and Northern Blackfoot had women's Buffalo Cow Societies called Ma´toki (Mails 1973:82). Among the Arapaho, there was a Women's Buffalo Society, and among the Gros Ventre, a (women's) Buffalo Cow Society. The Omaha and Assiniboine tribes had men's Buffalo Societies, while the Sioux tribes had a Buffalo Cult. The Arikara had the (men's) Buffalo and Young Buffalo Societies. Among the Hidatsa, there was a Buffalo Bull Society, and among the Mandan Indians, there were the Buffalo Bulls and the White Buffalo Cow Women (ibid.:382-384).

The ceremonies and dances performed by these groups involved imitating the buffalo in costume and behavior. Some of the societies performed rites designed to call the buffalo close to camp. Societies with this power included the Mandan White Buffalo Cow Society and probably the Bull Societies of the Blackfoot tribes. The dance of the Gros Ventre Buffalo Cow and Arapaho Women's Buffalo Societies generally assured the tribe of good hunting (Mails 1973:207, 223). The Gros Ventre Buffalo Cow ceremony was performed when a woman had dreamed of the dance or pledged it for the recovery of a sick relative. The dance involved four women leaders, four younger women assistants and two girls who represented buffalo calves; each woman wore a buffalo cap. On the fourth day of the ceremony, the women would imitate a herd of buffalo going to drink at a river where a hunter awaited them. The dancers would pretend to scent him and act afraid, pawing the ground and sniffing the air. The hunter would "shoot" one of them, and as the dancer fell to the ground, the tribe was assured of good hunting (ibid.:223). The Blood and Northern Blackfoot Ma´toki ceremony was similar, although it is not said to have had the same relationship to hunting. The Ma´toki danced once a year, when the Blackfoot gathered for their summer tribal encampment, in a ceremony lasting four days. Four members were known as the Scabby Bulls; they wore bonnets with horns and robes of cowskin, hair side out. Others, known as the Buffalo-Wool Bonnets, wore headdresses heavily covered with buffalo hair and with two horns attached. On the final day of the ceremony, the dancers performed a ritual imitative of buffalo.

> . . . before sunrise, the ma´toki: forms in procession and imitates buffalo going to water. They seek out some depression or low place in the prairie. As they drift along they segregate, as they do in the dance [into four groups]. At a place designated by the leader they all lie down like buffalo.
>
> Now it is customary for a man or a boy to have made a vow that he will "drive in the ma´toki" at their next ceremony . . . This man then rides out as if looking for buffalo. When he finds them, he builds a fire with cow dung to windward. As soon as the ma´toki smell the smoke, they rise. The driver then mounts and rides toward them, at which they start for shelter. As they proceed, he rides on their flank. They trot to the shelter, but four scabby bulls trail slowly in the rear. When the members get inside the shelter they run around the inside sun-wise until one by one some person lays hold of them and leads them to a seat. Two of the Snake bonnets run around in the reverse way. The four bulls come in last and walk slowly around until pulled into their seats. (Wissler 1913:432)

The Bull Society of the Crow Indians was a men's society. The members painted their faces and bodies with mud in imitation of wallowing buffalo. Two men wore buffalo head masks, and some of the more successful warriors wore buffalo tails from the backs of their belts stiffened with clay and made to stand erect. The men paraded about inside a member's lodge, the two in buffalo masks snorting and charging in the crowd. The society does not seem to have been explicitly connected with buffalo hunting, rather, war exploits seem to have been the concern of the members. Brave warriors told of and re-enacted their feats during the ceremony (Mails 1973:299-300).

Some ceremonies not so obviously linked with the buffalo in name and procedure as those mentioned above, still contained elements of dress, song and action that related to the buffalo. As outlined earlier, parts of the buffalo were widely used in ceremonial dress and as ritualistic objects. References to the buffalo in song and dance were also found in a variety of ceremonies. For example, the Piegan Front Tails, who held their ceremonies early in the morning because that was when the buffalo would get up and go to drink, danced in a manner that was said to be imitative of the buffalo (Wissler 1913:389). Buffalo songs were sung in the sweat house used for the Blackfoot Medicine Pipe rituals (Wissler 1912:155).

Rituals of a different sort were those connected with the killing of an albino buffalo, which was very rare. Among some tribes, albino buffalo were sacred and were therefore offered to the sun. Lowie recorded the following information on the Crow beliefs and rituals connected with white buffalo:

> Three-wolves said that the Crow sometimes encountered a yearling buffalo calf, white either on the back or heart or tail. The man who killed such a calf went home without touching it, gave a present to one of his father's clansmen, and told him he had slain a white calf. The father's clansman would go out, locate the calf, which invariably fell with its face towards the east, and skin it carefully so as not to cut the hide, which was then turned over very slowly. The meat was not touched at all, for it was said, "If you eat of the meat, your hair will turn gray prematurely." The father's clansman took the hide to camp, singing a song in praise of his clansman's son and praying that this man might have good luck. Then he would take the hide to one of *his* father's clansmen, saying, "I have brought you this hide for you to offer it to the Sun." The old man would take the skin, tie it to a long pole, carry it through camp with a laudatory chant, and say," I shall offer this to the Sun; I want everybody in camp to touch this hide." He went from the camp towards sunrise, planted the stick into the ground, and said, "Sun, I have given you a blanket." Then he prayed for coups or horses, or that

> his relatives should live to the next season without illness. He might say, "The people have done a great thing in giving you this, they wish for . . ." Usually only old people asked for gifts. Four offering songs without words were sung. This offering was made just before sunrise. . . .
>
> One informant said that the killer of an albino buffalo rode home with the skin in front of him, singing praise songs, and presented the hide to the chief, who painted pictures of the sun and the rainbow on the back and tied a plume to the tail. At daybreak he sang a song, telling the Sun of the offering, attached it to a high pole, and placed it on a hill, where it was left to fall; no one would touch it thereafter.
>
> Sitting-elk said that only a medicineman was permitted to skin an albino buffalo. The skin was suspended from an ash or cottonwood pole. (1922b:426-427)

The Cheyenne also sacrificed white buffalo hides to the Sun, or Great Power. Grinnell recorded the following account given by an eye-witness to the event described:

> In 1867 I happened to come into Eagle Chief's camp just after a white buffalo had been killed. The man who had killed it came in with the hide tied on his horse; he rode into the center of the camp-circle, stopped there, and dismounted. He did not take the hide off his horse, but stood there in the center of the circle holding his horse. The Indians began to look through the camp for some one who might take the hide from the horse with the prescribed ceremony. This could be done only by a man who had counted a coup by pulling an enemy off his horse in battle. Presently Left Hand, an Arapaho, came up carrying a stick in his right hand. He stopped by the horse, pointed with the stick in the direction of the place where the event had taken place, and then told how he had seen a Ute coming, had stepped behind a tree and waited until the Ute rode by him, and then had sprung upon him, pulled him from his horse and killed him with a knife. Then he struck the white buffalo-hide with his stick, and took it from the horse and placed it on the ground, where it remained. The man who had killed it had brought in no meat, for the carcass of a white buffalo may not be eaten; it must be left on the ground. If the meat were eaten, the buffalo might never again return to that place.
>
> The next day a pole was set in the ground to which the white hide was to be tied. Before this was done a very large sweat-house was built, and many of the old men went in to take a sweat and pray. Before they went in, women came in crowds, bringing their children, and various offerings -- calico, beads, moccasins, and other gifts -- which were to be tied to the pole and given to the sun. Before it was folded up to be tied to the pole, the hide was painted on the hair side with blue paint. The folded hide was tied to the pole by an old man who was naked, and was painted. While he was tying the

> hide to the pole he was constantly praying, and as each child was brought to him with an offering he prayed, passing his hands over its head, arms, and sides, and asking for good luck for it, for long life, health, and abundance of everything. Other old men stood about the man who was tying the hide, praying fervently. (1923, Vol. 1:272-273)

According to Grinnell (ibid.:273), unless a Cheyenne woman was specially painted by a medicine man who had the power to do so, she could not dress a white hide. One account of the ceremony for tanning the white buffalo hide was recorded by Grinnell.

> When a man shot a white buffalo he did not touch it, but, leaving the arrow in the body, at once set out to look for some old man who possessed the needed spiritual power. If the buffalo had been killed with a gun, the man who was to perform the ceremony over it must have killed an enemy with a gun. If it had been killed with an arrow, the man to perform the ceremony must have killed an enemy with an arrow.
>
> When the proper person had been found and brought to where the white buffalo lay, those who had gathered there moved the carcass until its head faced the east, and then rolled it over and propped it up on its knees and belly. The man who had killed it then pulled a tuft of hair first from the right shoulder and dropped it on the ground; then he pulled hair from the right rump, then from the left rump, from the left shoulder, and from the withers, each time dropping the hair as the wolf's hair had been placed on the ground in the women's ceremony with the wolf-skin.
>
> After this had been done, the men took hold of the body, and, after making four motions, turned it over on its back, rolling the carcass toward the north. It was then disemboweled and skinned. The skin of the head must be taken off by a man who had counted coup on and had scalped an enemy. The meat was left on the ground.
>
> The hide was taken to camp with appropriate ceremonies. The skin might be placed on the horse which was to carry it only by a man who in battle had taken a captive and carried him off on his horse. If such a man could not be found, then the hide might be placed on the horse by a man who in battle had picked up some dismounted friend or fellow tribesman and carried him off on his horse to safety.
>
> The owner of the hide walked back to camp, leading the horse which bore it. When the company reached the village, the hide was to be taken off the horse by some man who had pulled an enemy from his horse, and, finally, some man who had counted a coup inside an enemy's lodge carried the white buffalo hide into the owner's lodge, and, passing to the left of the fire, placed the skin on the ground behind the fire.

The crier was now sent through the village to shout an invitation to all the men who had counted more than one coup to assemble at the lodge where the hide was. After they had entered the lodge and were sitting all about it, the woman entered who was to dress the hide. She passed around behind the fire, and sat down behind the buffalo-hide. She dropped her dress to the waist, while the master of the ceremony painted her whole trunk to the waist with white clay paint. He wiped off the paint from a circle on her chest to represent the sun or the morning star, and from a crescent on her back, over the right shoulder blade; then, drawing his hands down over the body, he made vertical stripes on the white paint with his finger nails. At the woman's waist, in front, was tied a small bundle of white sage, and similar bundles were tied over each hip -- over each kidney -- while to the hair behind each ear a bunch was tied which stuck up like a little horn on either side.

After its blade had been rubbed over with charcoal, a knife was handed to the woman. She held the knife with the forearm horizontal, and the blade pointing upward. The man sitting next the door on the left side of the circle related the various coups he had counted, and at each coup recounted the woman cut a hole in the border of the hide for a pin to pass through in stretching it.

The man next in the circle then counted his coups, and for each coup recited the woman cut one hole in the margin of the hide, and so the counts went about the circle. About the head five holes were necessary, and in the head only a single hole could be cut for each man who spoke, no matter how many his coups.

After a sufficient number of holes had been cut, the woman began to flesh the hide, but only about its border. As she took off each piece of flesh, a coup was counted for it, one coup by each man on each piece, beginning again at the left of the circle.

After the border of the hide had been fleshed, a man who had dragged an enemy out from a lodge took up the hide, and, counting a coup on it before he left the lodge, carried it outside. The woman then took the skin to the center of the camp and spread it out. The men went with her, and the skin was laid on the ground flesh-side up and spread out with its head toward the east. Beginning at the right shoulder, facing the east, a warrior counted a coup, and the woman drove a pin through a hole in the border of the hide at this point. Then she moved to the right hip, then to the left hip and the left shoulder, and finally back to the root of the tail. At each of these points a coup was counted on a pin, which was driven through a hole in the margin of the hide for its preliminary stretching. Thus five of these pins were driven and five coups counted. The woman then drove the rest of the pins and stretched the hide in the usual manner, without further ceremony. When this had been done, she took the flesher and, when ready to begin the work of fleshing, a man who had captured a female enemy in a fight counted his coup, and the woman fleshed the hide.

> Later, when the hide was to be thinned down, another man counted a coup before the work of thinning began, and when the robe was ready for tanning a man was called who had been on a successful war-party which had returned without losing a man. He counted a coup over the hide, and when he had done so the work of dressing it began. The ceremony was performed with deliberation, and occupied a whole day. All this work was done in the presence of old men who possessed spiritual power. They sat about and watched it, to see that everything was in accordance with the prescribed fashion. (1923, Vol. 2:201-204)

On the Piegan beliefs and rituals surrounding the albino buffalo, Edward Curtis stated:

> The white buffalo, as with other tribes, was sacred, and to take one in the hunt was an important matter. However, its killing and dressing were not attended with the elaborate ceremony observed by the Sioux and some other tribes. If one was found in the herd, great effort was made by the hunters to kill it. When shot, they say, it fell with its head to the east, where the sun rises. Without dismounting, the hunter called for some other man in the party and said to him, "I give you this white buffalo." The other man pondered, and if he had in his herd an especially fine horse, he said to the one who killed the buffalo, "I accept it." Then the killer rode away and the other dismounted and set fire to some buffalo-chips, one of which he laid at the animal's nose, another at the tail, another at the feet, and a fourth at the back. Then on each burning chip he placed sage, and with a bunch of sage he wiped the blood from the animal's wounds. Next he carefully skinned it, removing every particle of skin from the face and even to the edge of the hoofs. Leaving the meat, he wrapped the skin in a robe, mounted his horse, and rode to his home. There he ordered his best horse to be brought and tied in front of his lodge. The skin he took into the lodge, where a space was cleared before the place of honor, and there he laid the bundle. He ordered food prepared, and called out an invitation to the man who had killed the buffalo. After the feast and the smoke, he said, "There is your horse outside." Then the skin was dressed, without formality, the head-skin and the tail remaining attached to the hide. The owner wore it on special occasions, and after keeping it for a year or two, he prepared a feast, laid the skin in the place of honor, put some presents beside it, sent for a good horse, and tied it in front of the lodge. Then he summoned a medicine-man who knew all the sweat-lodge songs. When the singer entered the lodge, the owner of the skin gave him the pipe, and said: "That horse outside is yours. I wish you to sing the songs of the sweat-lodge, for I am going to give this skin to the Sun." So the priest sang the first seven sweat-lodge songs, those given by the sun, and then began again to sing them, at the same time painting on the skin with black an arch for the course of the sun, a circle for the moon, another circle for the morning star, and at the sides of these, two straight lines for the sun-dogs. He finished the painting as the seventh song was reached for the second time, and instructed the owner of the skin to place it in a certain tree, if any trees

> were in that vicinity, or on a hill or a high rock. The owner obeyed, with many prayers to the sun for good luck. Occasionally such a robe was offered to the sun by placing it in the fork of the centre-pole of the medicine-lodge before it was raised. (1909, Vol. 6:14-15)

The white buffalo hide was also sacred among the Mandan (J. Dorsey 1894:510), Teton Sioux (Lowie 1909a:51), and Omaha (Fletcher and La Flesche 1911:283-309) tribes, and probably some others as well. The Assiniboine, however, did not practice an elaborate ceremony in connection with the white buffalo. The slayer of the animal simply refrained from eating the meat and presented the skin to a chief who, in return, gave the hunter a gift. The chief then had the hide dressed and wore it as a robe (Lowie 1909a:51).

CEREMONIAL EFFECTS OF BUFFALO EXTERMINATION

The disappearance of the buffalo in the late nineteenth century had an influence on the ceremonialism of the Plains Indians. The buffalo played a role of symbolic importance in the Ghost Dance, an interesting ceremony that developed among a number of Plains tribes in response to their drastically changing circumstances in the world. Wissler summarized this phonomenon as follows:

> This was a religious ceremony founded upon the belief in the coming of a Messiah, which seems to have originated among the Paviotso Indians in Nevada (Plateau Area) about 1888 and which spread rapidly among the Indians of the Plains. The prophet of the religion was a young Paiute Indian (Plateau Area) who claimed to have had a revelation while in a delirious condition caused by an attack of fever. The Teton-Dakota seem to have first heard of the new religion in 1889 and in a council held by Red-cloud appointed a committee to visit the prophet and investigate. On this committee were Short-bull and Kicking-bear, who returned very enthusiastic converts and began preaching the new religion among the Dakota. The principal belief was that an Indian Messiah was about to appear to destroy the white race, and restore the buffalo with all former customs. As in all Indian ceremonies, dancing played a large part, but in this case the dancers usually fell into a hypnotic trance and upon recovering recounted their visions and supernatural experiences. All participants were provided with decorated cloth garments bearing symbolic designs which were believed to have such relation with the coming Messiah that all who wore them would be protected from all harm. Among white people these garments were generally known as "bullet proof shirts."

> The enthusiasm over the new ghost dance religion spread over the several Dakota Indian reservations, resulting in the attempted arrest and killing of the famous Sitting-bull by the Indian police and hostile demonstrations on the Pine Ridge Reservation, under the leadership of Short-bull and Kicking-bear. . . .
>
> Practically all of the typical tribes took up the new beliefs about the same time but nowhere else did the excitement lead to violence. Among the Cheyenne, Arapaho, and Gros Ventre, the ceremonies still exist in a modified form, apparently combined with the Omaha or grass dance. (1974:125-127)

Many of the supernatural experiences undergone during the Ghost Dance pertained to the buffalo. For example, the following translation of a Sioux Ghost Dance song refers to a woman's vision of a herd of buffalo and a bull walking about near them:

> Now he is walking,
> Now he is walking
> There is a buffalo bull walking,
> There is a buffalo bull walking,
> Says the father,
> Says the father. (Mooney 1896:1088)

In the Ghost Dance, the buffalo became a powerful symbol for the way of life that was vanishing as a result of the white man. According to Ghost Dance doctrine, the destruction of the white man and the restoration of the buffalo to the Indians by the Messiah would be the salvation of the Indians. Many dates were set for the white man's apocalypse, but the event, of course, never materialized; the Indians' situation simply grew worse. These circumstances, and the violence and death of Sitting Bull at Wounded Knee in December of 1890, contributed to the dissipation of the Ghost Dance beliefs (Hultkrantz 1973:31; Mooney 1896:778).

As the examples above illustrate, the use of the buffalo physically and symbolically in ceremonialism was widespread among the Plains Indians. The animal figured not only in ceremonies directly related to the buffalo, such as game charming ceremonies and the offering of the white buffalo hide to the sun, but also in a variety of ceremonies in which the relationship between the ritual and the buffalo was not as explicit or even apparent. This frequent appearance of the buffalo in a wide range of ceremonies seems to reflect the pervasive, deeply-rooted importance of the buffalo in Plains Indian culture. The buffalo symbolism in the Ghost Dance represents a tragic, last flourishing of this symbolic tradition. Although some ceremonies practiced during the twentieth century have utilized buffalo elements to a small degree, the buffalo as a ceremonial element has declined drastically, as has Plains Indian ceremonialism in general.

BIBLIOGRAPHY

Alexander, Hartley Burr
1953 *The World's Rim: Great Mysteries of the North American Indians*. University of Nebraska Press, Lincoln.

Allen, J.A.
1876 *The American Bison, Living and Extinct*. Geological Survey of Kentucky, Memoirs, 1(2).

Arthur, George W.
1975 *An Introduction to the Ecology of Early Historic Communal Bison Hunting Among the Northern Plains Indians*. Archaeological Survey of Canada, Paper No. 37.

1978 A Re-analysis of the Early Historic Plains Indian Bison Drives. *Plains Anthropologist Memoir* 14(2):236-242.

1979 Bison Pounds. *Proceedings of the Plains Cree Conference Held in Fort Qu'Appelle*, October 24, 25, and 26, 1975.

Audubon, Maria
1969 *Audubon and His Journals*, 2 vols. Dover, New York.

Bancroft-Hunt, Norman
1981 *The Indians of the Great Plains*. Orbis, London.

Barrett, S.A.
1921a *The Blackfoot Iniskim or Buffalo Bundle, Its Origin and Use*. Public Museum of the City of Milwaukee, Yearbook.

1921b *Collecting Among the Blackfoot Indians*. Public Museum of the City of Milwaukee, Yearbook.

Beckmith, Martha
1937 Mandan-Hidatsa Myths and Ceremonies. The American Folk-lore Society, J.S. Augustin, New York.

Biddle, Nicholas (editor)
1814 *History of the expedition under the Command of Captains Lewis and Clark*, 2 vols. Bradford and Inskeep, New York.

Berthong, Donald J.
1963 *The Southern Cheyennes*. University of Oklahoma Press, Norman.

Boller, Henry A.
1959 *Among the Indians: Eight Years in the Far West 1858-1866*, edited by Milo Mitton Quaife. R.R. Donnelley & Sons, Chicago.

Bowers, Alfred
1965 Hidatsa Social and Ceremonial Organization. Smithsonian Institute, Bureau of American Ethnology, Bulletin 194.

Brackenridge, H.M.
1905 Journal of a Voyage Up the River Missouri, Performed in 1811. Vol. 6 of Early Western Travels, edited by Reuben G. Thwaites. Arthur H. Clark, Cleveland.

Bradley, James H.
1923 Characteristics, Habits and Customs of the Blackfoot Indians. Montana Historical Society Contributions 9:255-287. Reprinted by J.S. Canner, Boston, 1966.

Branch, E. Douglas
1962 The Hunting of the Buffalo. University of Nebraska Press, Lincoln.

Brodrick, Richard N.
1939 The Great Buffalo Migration. Canadian Cattleman 2(3):285-313.

Brown, Barnum
1932 The Buffalo Drive. Natural History 32(1):75-83.

Brown, John George "Kootenai"
1919-1920 I Remember. Recollections of John George "Kootenai" Brown Related Verbatim to William M. Tait. Typed Manuscript (copied from the Farm and Ranch Review 15-16) on file Archives of Glenbow-Alberta Institute, Calgary.

Burland, Cottie
1965 North American Indian Mythology. Paul Hamlyn, London.

Burpee, Lawrence J. (editor)
1927 Journals & Letters of Pierre Gaultier de Varennes de la Verendrye and his Sons. Publications of the Champlain Society, Vol. 16.

Catlin, George
1841 Letters and Notes on the Manners, Customs and Conditions of the North American Indians, 2 vols. George Catlin, London.

1844 North American Indian Portfolio. George Catlin and J. Adlard, London.

1926 Letters and Notes on the Manners, Customs, and Conditions of the North American Indians, 2 vols. John Grant, Edinburgh.

Cocking, Mathew
1908 An Adventurer from Hudson Bay, edited by J.L. Burpee. Proceedings and Transactions of the Royal Society of Canada, third series, 2(2):89-121.

Cooper, John M.
1957 *The Gros Ventres of Montana, Part II: Religion and Ritual*, edited by Regina Flannery. The Catholic University of America, Anthropological Series 16.

Coues, Elliot (editor)
1897 *New Light on the Early History of the Greater Northwest. The Manuscript Journals of Alexander Henry, Fur Trader, and David Thompson, Official Geographer and Explorer of the North West Company*, 3 vols. Francis P. Harper, New York.

Cowie, Isaac
1913 *The Company of Adventurers: A Narrative of Seven Years in the Service of the Hudson's Bay Company During 1867-74 on the Buffalo Plains*. William Briggs, Toronto.

Culin, Stewart
1907 Games of the North American Indians. *Twenty-fourth Annual Report of the Bureau of American Ethnology 1902-1903*:1-809.

Curtis, Edward S.
1909 *The North American Indian*, 20 vols., edited by Frederick Webb Hodge. University Press, Cambridge.

Dary, David A.
1974 *The Buffalo Book*. Avon, New York.

Dawson, George M.
1875 *Geology and Resources of the 49th Parallel*. Dawson Brothers, Montreal.

1884 Report on the Region of the Vicinity of the Bow and Belly Rivers, Northwest Territory. *Geological and Natural History Survey of Canada, Report of Progress, 1882-1883-1884*.

Dempsey, Hugh A.
1957a Buffalo Jumps. Typescript of Interview with John Cotton, Blood Reserve, January 4, 1957. Unpublished manuscript on file Archives of Glenbow-Alberta Institute, D970.3, D389.

1957b The Women's Buffalo Jump. Typescript of Interview with John Cotton and Teddy Bull Shield, Blood Reserve, January 4, 1957. Unpublished manuscript on file Archives of Glenbow-Alberta Institute.

1965 *A Blackfoot Winter Count*. Glenbow-Alberta Institute, Occasional Paper No. 1.

1968 *Blackfoot Ghost Dance*. Glenbow-Alberta Institute, Occasional Paper 3.

Dempsey, Hugh A.

1977 *The Rundle Journals 1840-1848.* Historical Society of *Alberta and Glenbow-Alberta* Institute, Calgary.

1978 *Indian Tribes of Alberta*. Glenbow-Alberta Institute, Calgary.

Denig, Edwin Thompson

1930 *Indian Tribes of the Upper Missouri*, edited by J.N.B. *Hewitt. Forty-sixth Annual Report* of the Bureau of American Ethnology: 375-6256.

1961 *Five Indian Tribes of the Upper Missouri*, edited by John *C. Ewers. University of Oklahoma Press*, Norman.

Denver Art Museum

1945 *The Plains Indian Tribes: Location, Population and Culture.* Denver Art Museum, Department of Indian Art, *Leaflet* No. 23.

De Smet, Pierre-Jean

1906 *Letters and Sketches: With a Narrative of a Year's Residence Among the Indian Tribes of the Rocky Mountains. Vol. 27 of Early Western Travels: 1748-1846*, edited by Reuben G. Thwaites. Arthur H. Clark, Cleveland.

1972 *Western Missions & Missionaries: A Series of Letters. University Press, Shannon, Ireland.*

Dodge, Richard I.

1882 *Our Wild Indians: Thirty-Three Years' Personal Experience Among the Red Men of the Great West*. A.D. Worthington, Hartford.

1959 *The Plains of the Great West*. Archer House, New York.

Dorsey, George A.

1905 *The Cheyenne*. Field Columbian Museum Publications 99 and *103, Anthropological* Series 9(1-2). Reprinted by Rio Grande Press, Glorieta, NM, 1971.

Dorsey, J. Owen

1884 Omaha Sociology, *Third Annual Report of the Bureau of Ethnology 1881-1882*:211-370.

1894 A Study of Siouan Cults. *Eleventh Annual Report of the Bureau of Ethnology 1889-1890*:361-544.

Douglas, Frederic H. (editor)

1930 *The Buffalo and the Indian.* Denver Art Museum, Department *of Indian Art, Leaflet No.* 7.

1931a *The Blackfoot Indians.* Denver Art Museum, Department of *Indian Art, Leaflet N*os. 37 and 38.

Douglas, Frederic H. (editor)
1931b *The Plains Indian Tipi*. Denver Art Museum, Department of Indian Art, Leaflet No. 19.

Driver, Harold E.
1969 *Indians of North America*, (second ed.), University of Chicago Press, Chicago.

Eggan, Fred
1969 *The American Indian*. Aldine, Chicago.

Eggan, Gail N. and George A. Agognino
1965 Man's Use of Bison and Cattle on the High Plains. *Great Plains Journal* 5(1):35-43.

Ewers, John C.
1945 *Blackfeet Crafts*. U.S. Dept. of the Interior, Bureau of Indian Affairs, Dept. of Education.

1946 *Identification and History of the Small Robes Band of the Piegan Indians*. Journal of the Washington Academy of Sciences, 36(12).

1955 *The Horse in Blackfoot Indian Culture*. Smithsonian Institution, Bureau of American Ethnology, Bulletin 159.

1958 *The Blackfeet: Raiders of the Northwestern Plains*. University of Oklahoma Press, Norman.

1960a A Blood Indian's Conception of Tribal Life in Dog Days. *The Blue Jay*, Saskatchewan Museum of Natural History 18(1):44-48.

1960b *Selected References on the Plains Indians*. Smithsonian Anthropological Bibliographies No. 1.

1968 *Indian Life on the Upper Missouri*. University of Oklahoma Press, Norman.

1974 *Ethnological Report on the Blackfeet and Gros Ventre Tribes of Indians*. Garland, New York.

Fidler, Peter
1792-1793 Journal of a Journey Overland from Buckingham House to the Rocky Mountains in 1792 and 1793. Typescript of Unpublished Journal, J.G. MacGregor Collection, Provincial Archives of Alberta, Edmonton.

First Rider, George
1969a How They Catch Eagles in the Olden Days. Transcript of Interview on Phonotape (78.43/AH 69.113.1), Provincial Archives of Alberta, Edmonton.

First Rider, George
1969b Hunting. Transcript of Interview on Phonotape (78.43/AH.69.110.1), Provincial Archives of Alberta, Edmonton.

1969c Iniskim. Transcript of Interview on Phonotape (78.43/AH 68.26.1), Provincial Archives of Alberta, Edmonton.

Flannery, Regina
1953 *The Gros Ventres of Montana: Part I, Social Life. The Catholic University of America Anthropological Series* 15.

Fletcher, Alice C. and Francis La Flesche
1911 The Omaha Tribe. *Twenty-seventh Annual Report of the Bureau of American Ethnology 1905-1906*:15-654.

Flynn, A.J.
1908 *The American Indian as a Product of Environment*. Little, Brown, Boston.

Forbis, Richard G.
1960 *The Old Women's Buffalo Jump, Alberta*. National Museum of *Canada Bulletin No. 180, (Contributions to Anthropology,* 1960), pt. 1.

1978 Some Facets of Communal Hunting. *Plains Anthropologist, Memoir* 14:3-8.

Franklin, John
1969 *Narrative of a Journey to the Polar Sea: 1819, 1820, 1821 and 1822*. Hurtig, Edmonton.

Gard, Wayne
1959 *The Great Buffalo Hunt*. Alfred A. Knopf, New York.

Gilmore, Melvin R.
1924 Old Assiniboin Buffalo Drive in North Dakota. *Indian Notes* 1(4).

Grinnell, George Bird
1892 Development of a Pawnee Myth. *Journal of American Folk Lore* 5:127-134.

1893 *Blackfoot Lodge Tales*. David Nutt, London.

1923 *The Cheyenne Indians: Their History and Ways of Life, 2 vols*. Yale University Press, New Haven.

1966 *When Buffalo Run*. University of Oklahoma, Norman.

Gunnerson, Dolores A.
1972 Man and Bison on the Plains in the Protohistoric Period. *Plains Anthropologist* 17(55):1-10.

Haines, Francis
1970 *The Buffalo*. Thomas Y. Crowell, New York.

1976 *The Plains Indians*. Thomas Y. Crowell, New York.

Harmon, Daniel W.
1911 *A Journal of Voyages and Travels in the Interior of North America*, edited by Daniel Haskel. Courier Press, Toronto.

Harriott, J.E.
1833-1834 Piegan Post and Rocky Mountain House Journal 1833/34. Typescript, Provincial Archives of Alberta, Edmonton.

Hassrick, Royal B.
1964 *The Sioux: Life and Customs of a Warrior Society*. University of Oklahoma Press, Norman.

Hearne, Samuel
1911 *A Journey from Prince of Wales's Fort in Hudson's Bay to the Northern Ocean*. Publications of the Champlain Society, Vol. 6.

Hector, James and W.S. Vaux
1861 *Notice of the Indians seen by the Exploring Expedition under the Command of Captain Palliser*. Transactions of the Ethnological Society of London 1.

Hendry, Anthony
1907 *York Factory to the Blackfeet Country. The Journals of Anthony Hendry, 1754-1755*, edited by L.J. Burpee. Transactions of the Royal Society of Canada, series 3, Vol. 1.

Hind, Henry Youle
1971 *Narrative of the Canadian Red River exploring expedition of 1857 and of the Assiniboine and Saskatchewan exploring expedition of 1858*, 2 vols. Hurtig, Edmonton.

Hodge, Frederick W. (editor)
1968 *Handbook of American Indians North of Mexico, in two parts*. Scholarly Press, Grosse Pointe, Michigan. Reprint of Smithsonian Institution, Bureau of American Ethnology, Bulletin 30, 1907-1910.

Hoebel, E. Adamson
1960 *The Cheyennes*. Holt, Rinehart, Winston, New York.

1977 *The Plains Indians: A Critical Bibliography*. Indiana University Press, Bloomington.

Holder, Preston
1969 Bison and Man on the Plains. *Plains Anthropologist* 14(46):319-320.

Hornaday, William T.
1971 The Extermination of the American Bison, With a Sketch of its Discovery and Life History. Smithsonian Report, United States National Museum, 1887:367-548. Shorey Book Store, Seattle.

Hultkrantz, Ake
1973 Prairie and Plains Indians. Institute of Religious Iconography, State University Groningen, Iconography of Religions 10, edited by Th. P. van Barren, L. Leertouwer, and H. Buning.

1979 The Religions of the American Indians, translated by Monica Setterwall. University of California Press, Berkley.

1981 Belief and Worship in Native North America, edited by Christopher Vecsey. Syracuse University Press, Syracuse, New York.

James, Edwin
1905 Edwin James' Account of S.H. Long's Expedition, 1819-1820. Vols. 14-16 of Early Western Travels: 1748-1846, edited by Reuben G. Thwaites. Arthur H. Clark, Cleveland.

Jefferson, Robert
1929 Fifty Years on the Saskatchewan. Canadian Northwest Historical Society Publications 1(5):1-160.

Jenness, Diamond
1938 The Sarcee Indians of Alberta. Canada Department of Mines and Resources, National Museum of Canada, Bulletin 90, Anthropological Series, No. 23.

1963 The Indians of Canada (sixth ed.). National Museum of Canada, Bulletin 65, Anthropological Series No. 15.

Johnson, Alice M. (editor)
1967 Saskatchewan Journals and Correspondence; Edmonton House, 1795-1800; Chesterfield House, 1800-1802. The Hudson's Bay Record Society, London.

Kane, Paul
1925 Wanderings of An Artist Among the Indians of North America. Vol. 7 of Master-Works of Canadian Authors, edited by John W. Garvin. Radisson Society of Canada, Toronto.

Kehoe, Alice B.
1963 Saskatchewan Indian Religious Beliefs. Saskatchewan Museum of Natural History, Popular Series 7.

Kehoe, Thomas F.
1973 *The Gull Lake Site: A Prehistoric Bison Drive in Southwestern Saskatchewan*. Milwaukee Public Museum Publications in Anthropology and History 1.

Kelsey, Henry
1929 *The Kelsey Papers*. The Public Archives of Canada and The Public Record Office of Northern Ireland, Ottawa.

Kidd, Kenneth E.
1937 *Blackfoot Ethnography*. Unpublished M.A. Thesis, University of Toronto.

Koch, Ronald P.
1977 *Dress Clothing of the Plains Indians*. University of Oklahoma Press, Norman.

Kroeber, Alfred L.
1906 The Ceremonial Organization of the Plains Indians. *International Congress of Americanists, Proceedings* 15(2):53-63.

1908 Ethnology of the Gros Ventre. *Anthropological Papers of the American Museum of Natural History* 1(4):141-282.

1963 *Cultural and Natural Areas of Native North America*. University of California Press, Berkeley.

1975 *The Arapaho*. Galleon Press, Fairfield, Washington.

Kurz, Rudolph F.
1937 *Journal of Rudolph Frederich Kurz 1846-1852*, translated by Myrtis Jawell, edited by J.N.B. Hewitt. Bureau of American Ethnology, Bulletin 115.

Larocque, Francois
1910 *Journal of Laroque from the Assiniboine to the Yellowstone, 1805*, edited by L.J. Burpee. Canadian Archives Publication No. 3.

Larpenteur, Charles
1898 *Forty Years a Fur Trader on the Upper Missouri: The Personal Narrative of Charles Larpenteur, 1833-1875*, 2 vols., edited by Elliot Coues. Arthur Clark, Cleveland.

Lehmer, Donald J.
1963 The Plains Bison Hunt - Prehistoric and Historic. *Plains Anthropologist* 8(22):211-217.

Leonard, Zenas
1959 *Adventures of Zenas Leonard, Fur Trader*, edited by John C. Ewers. University of Oklahoma, Norman.

Lewis, H.P.
n.d. Buffalo Kills of Montana. Unpublished Manuscript (D571L674) on file Glenbow Foundation, Calgary.

Lewis, Meriwether and William Clark
1904 *Original Journals of the Lewis and Clark Expedition*, 8 vols. Dodd, Mead, New York.

Lewis, Oscar
1942 *The Effects of White Contact upon Blackfoot Culture with Special Reference to the Role of the Fur Trade.* Monographs of the American Ethnological Society, No. 6.

Lowie, Robert H.
1909a The Assiniboine. *Anthropological Papers of the American Museum of Natural History* 4(1):1-270.

1909b The Northern Shoshone. *Anthropological Papers of the American Museum of Natural History* 2(2):165-306.

1915a Societies of the Arikara Indians. *Anthropological Papers of the American Museum of Natural History* 11(8):647-678.

1915b *The Sun Dance of the Crow Indians.* Anthropological Papers of the American Museum of Natural History 16(1).

1918 *Myths and Traditions of the Crow Indians.* Anthropological Papers of the American Museum of Natural History 25(1).

1922a The Material Culture of the Crow Indians. *Anthropological Papers of the American Museum of Natural History* 21(3):203-269.

1922b The Religion of the Crow Indians. *Anthropological Papers of the American Museum of Natural History* 25(2):309-444.

1924 *Minor Crow Ceremonies.* Anthropological Papers of the American Museum of Natural History 21(5).

1956 *The Crow Indians.* Rinehart, New York.

1963 *Indians of the Plains.* Natural History Press, Garden City, New York.

MacLean, John
1892-1893 *Social Organization of the Blackfoot Indians.* Canadian Institute 4.

McClintock, Walter
1900 Four Days In a Medicine Lodge. *Harper's Magazine*, September, 1900. (Reprinted by The Shorey Book Store, Seattle, 1965).

1910 *The Old North Trail.* Macmillan, London.

McDonnell, John
1889 Some Account of the Red Deer River (About 1797) With Extracts from His Journal 1793-1795. In *Les Bourgeois de la Compagnie du Nord-Ouest* (Vol. 1), edited by Louis Masson. L'Imprimerie Generale A Cote et Cie, Quebec.

McDougall, John
1896 *Saddle, Sled and Snowshoe*. William Briggs, Toronto.

1971 *Parsons on the Plains*, edited by Thomas Bredin. Longman, Don Mills, Ontario.

M'Gillivray, Duncan
1929 *The Journal of Duncan M'Gillivray of the Northwest Company at Fort George on the Saskatchewan, 1794-95*, edited by Arthur S. Morton. MacMillan, Toronto.

McGregor, J.G.
1966 *Peter Fidler: Canada's Forgotten Surveyor 1769-1822*. McClelland and Stewart, Toronto.

McHugh, Tom
1972 *The Time of the Buffalo*. Alfred A. Knopf, New York.

MacKenzie, Charles
1889 The Missouri Indians: A Narrative of Four Trading Expeditions to the Missouri 1804-1805-1806 for the Northwest Company. In *Les Bourgeois de la Compagnie du Nord-Ouest*, (Vol. 1), edited by Louis Masson. L'Imprimerie Generale A Cote et Cie, Quebec.

McFee, Malcolm
1977 Modern Blackfeet: Montanans on a Reservation. In *Native North American Cultures: Four Cases*, edited by George and Louise Spinder, pp. 265-360. Rinehart and Winston, New York.

Mails, Thomas E.
1972 *The Mystic Warriors of the Plains*. Doubleday & Company, Garden City, New York.

1973 *Dog Soldiers, Bear Men and Buffalo Women*. Prentice-Hall, Englewood Cliffs, N.J.

Malouf, Carling and Stuart Conner (editors)
1962 *Symposium on Buffalo Jumps*. Montana Archaeological Society, Memoir 1.

Mandelbaum, David S.
1979 *The Plains Cree*. Canadian Plains Research Center, University of Regina, Canadian Plains Study 9.

Marquis, Thomas B.
1978 *The Cheyennes of Montana*, edited by Thomas D. Weist. Reference Publications, Algonac, Michigan.

Marriott, Alice and Carol K. Rachlin
1975 Plains Indian Mythology, Thomas Y. Crowell, New York.

Martin, Cy
1973 The Saga of the Buffalo. Hart, New York.

Maximilian, Prince of Wied
1905-1906 Travels in the Interior of North America. Vols. 22-25 of Early Western Travels, 1748-1846, edited by Reuben G. Thwaites. Arthur H. Clark, Cleveland.

Medicine Crow, Joe
1978 Notes on Crow Indian Buffalo Jump Traditions. Plains Anthropologist, Memoir 14:249-253.

Miller, Alfred Jacob
1982 Artist on the Oregon Trail, edited by Ron Tyler. Amon Carter Museum, Fort Worth, Texas.

Miller, G.
1977 The American Bison (Bison Bison): An Initial Bibliography. Canadian Wildlife Service, Parks Canada, Ottawa.

Misken, Bernard
1940 Rank and Warfare Among the Plains Indians. Monographs of the American Ethnological Society, No. 3.

Moodie, D.W. and Arthur J. Ray
1976 Buffalo Migrations in the Canadian Plains. Plains Anthropologist 21(71):45-54.

Mooney, James
1896 The Ghost Dance Religion and the Sioux Outbreak of 1890. Fourteenth Annual Report of the Bureau of Ethnology 1892-1893, pt. 2.

1898 Calender History of the Kiowa Indians. Seventeenth Annual Report of the Bureau of American Ethnology 1895-1896: 141-253.

Murdock, George Peter and Timothy J. O'Leary
1975 Ethnographic Bibliography of North America (fourth ed.). Human Relations Area Files Press, New Haven.

Newcomb, William W. Jr.
1974 North American Indians: An Anthropological Perspective. Goodyear, Pacific Palisades, California.

Oliver, Symmes C.
1962 Ecology and Cultural Continuity as Contributing Factors in the Social Organization of the Plains Indians. University of California Publications in American Archaeology and Ethnology 48, No. 1.

Owen, Roger C., James J.F. Deetz and Anthony D. Fisher (editors)
1967 *The North American Indians: A Sourcebook*. MacMillan, New York.

Palliser, John
1863 *The Journals, Detailed Reports and Observations Relating to the Exploration by Captain Palliser . . . 1857-1860*. Eyre and Spottiswoode, London.

1969 *Solitary Rambles and Adventures of a Hunter in The Prairies*. Hurtig, Edmonton.

Parkman, Francis
1919 *The Oregon Trail*, edited by William MacDonald. Scott, Foresman, Chicago.

Petersen, Karen D.
1971 *Plains Indian Art from Fort Marion*. University of Oklahoma Press, Norman.

Point, Nicolas
1967 *Wilderness Kingdom: Indian Life in the Rocky Mountains: 1840-1847*, translated by Joseph P. Donnelly. Holt, Rinehart, Winston, New York.

Powell, Peter J.
1969 *Sweet Medicine*, 2 vols. University of Oklahoma Press, Norman.

Quaife, Milo Mitton (editor)
1921 *Alexander Henry's Travels and Adventures in the Years 1760-1776*. R.R. Donnelley and Sons, Chicago.

Quigg, J. Michael
1978 Winter Bison Procurement in Southwestern Alberta. *Plains Anthropologist, Memoir* 14(2):53-57.

Radin, Paul
1923 The Winnebago Tribe. *Thirty-seventh Annual Report of the Bureau of American Ethnology 1915-1916*:35-550.

Roe, Frank G.
1955 *The Indian and the Horse*. University of Oklahoma Press, Norman.

1972 *The North American Buffalo*. David & Charles, Newton Abbot.

Rogers, Edward S.
1970 *Indians of the Plains*. Royal Ontario Museum, Toronto.

Sandoz, Mari
1954 *The Buffalo Hunters*. Hastings House, New York.

Schaeffer, Claude E.

n.d. Unpublished Notes, Manuscripts and Correspondence. Collection of Archives of the Glenbow-Alberta Institute, Calgary.

1978 The Bison Drive of the Blackfoot Indians. Plains Anthropologist, Memoir 14:243-248.

Schoolcraft, Henry R.

1847 Information Respecting the History, Condition and Prospects of the Indian Tribes of the United States, pt. 4. Lippincott, Grambo, Philadelphia.

Schultz, James W.

1962 Blackfeet and Buffalo, edited by Keith C. Seele. University of Oklahoma Press, Norman.

Seton, Julia M.

1962 American Indian Arts. Ronald, New York.

Shimkin, D.B.

1947 Wind River Shoshone Ethnogeography. California State College, Anthropological Records 5(4).

Simms, S.C.

1903 Traditions of the Crows. Field Columbian Museum Publication 85, Vol. 2(6).

Skinner, Alanson

1914a Political Organization, Cults and Ceremonies of the Plains-Ojibway. Anthropological Papers of the American Museum of Natural History 11(6):482-499.

1914b Political Organization, Cults and Ceremonies of the Plains-Cree. Anthropological Papers of the American Museum of Natural History 11(6):513-542.

Smith, Maurice G.

1924 Political Organization of the Plains Indians. University of Nebraska, University Studies 24.

Spence, Lewis

1932 The Myths of the North American Indians. Farrar and Rinehart, New York.

Spencer, Robert F. and Jesse D. Jennings, et al.

1965 The Native Americans. Harper & Row, New York.

Spier, L.

1921 The Sun Dance of the Plains Indians. Anthropological Papers of the American Museum of Natural History 16(7).

Spry, Irene M.
1968 *The Papers of the Palliser Expedition, 1857-1860. Publications of the Champlain Society, Vol. 44.*

Standing Bear, Luther
1928 *My People the Sioux*, edited by E.A. Brininstool. Williams and Northgate, London.

Stanley, John Mix
1855 Report of Mr. J.M. Stanley's Visit to the Piegan Camp at the Cypress Mountain. In *Pacific Railroad Survey Report of Explorations and Surveys to Ascertain the Most Practicable Route for a Railroad from the Mississippi River to the Pacific Ocean* 1.

Tefft, S.K.
1965 From Band to Tribe on the Plains. *Plains Anthropologist* 10(27):166-170.

Teit, James
1930 The Salishan Tribes of the Western Plateaus, edited by Frans Boas. *Forty-fifth Annual Report of the Bureau of American Ethnology 1927-1928*:23-396.

Thomas, Davis and Karin Ronnefeldt (editors)
1976 *People of the First Man: Life Among the Plains Indians in their Final Days of Glory*. E.P. Dutton, New York.

Thompson, David
1916 *David Thompson's Narrative of his Explorations in Western America 1784-1812*, edited by J.B. Tyrrell. Publications of the Champlain Society, Vol. 12.

Traill, William E.
n.d. The Unpublished Correspondence of William Edward Traill. (A.7767 M124) Archives of the Glenbow-Alberta Institute, Calgary.

Turner, Allan R. (editor)
1968 The Journal of George M. Dawson, 1873. *Saskatchewan History* 21(1):1-23.

Turney-High, H.H.
1937 *The Flathead Indians of Montana*. American Anthropological Association, Memoir 48.

1941 *Ethnography of the Kutenai*. American Anthropological Association, Memoir 56.

Uhlenbeck, C.C.
1912 *A New Series of Blackfoot Texts From the Southern Piegans Blackfoot Reservation, Teton County, Montana*. Johannes Muller, Amsterdam.

Underhill, Ruth M.
1965 Red Men's Religion. The University of Cnicago Press, Chicago & London.

Umfreville, Edward
1790 The Present State of Hudson's Bay. Charles Stalker, London.

Wallis, Waldo
1947 Tne Canadian Dakota. Anthropological Papers of the American Museum of Natural History 41(1):1-275.

Webb, Walter Prescott
1931 The Great Plains. Ginn, Boston.

Weekes, Mary L.
1948 An Indian's Description of the Making of a Buffalo Pound. Saskatchewan History 1(3):14-17.

Wilson, Charles
1970 Mapping the Frontier between British Columbia and Washington, edited by George F.G. Stanley. MacMillan, Toronto.

Wilson, R.N.
1887 The Blackfoot. Report of the Fifty-seventh Meeting of the British Association for the Advancement of Science: 183-197.

Wissler, Clark
1910 Material Culture of the Blackfoot Indians. Anthropological Papers of the American Museum of Natural History 5(1).

1911 The Social Life of the Blackfoot Indians. Anthropological Papers of the American Museum of Natural History 7(1).

1912 Ceremonial Bundles of the Blackfoot Indians. Anthropological Papers of the American Museum of Natural History 7(2).

1913 Societies and Dance Associations of the Blackfoot Indians. Anthropological Papers of the American Museum of Natural History 11(4):359-460.

1916 General Discussion of Shamanistic and Dancing Societies. Anthropological Papers of the American Museum of Natural History 11(12):853-876.

1918 The Sun Dance of the Blackfoot Indians. Anthropological Papers of the American Museum of Natural History 16:223-270.

Wissler, Clark

1938 *The American Indian: An Introduction to the Anthropology of the New World* (third ed.). Oxford University Press, New York.

1948 *Indians of the United States*. Doubleday, Garden City, New York.

1957 *The American Indian*. Peter Smith, Glouceston, Mass.

1974 *North American Indians of the Plains*. Burt Franklin, New York. Reprint of 1934 edition.

Wood, Raymond W. and Margot Liberty (editors)

1980 *Anthropology on the Great Plains*. University of Nebraska Press, Lincoln.

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